

NAVAL POSTGRADUATE SCHOOL

Monterey, California



THESIS

**STUDY OF VOLUNTARY RESIGNATION
BY FEMALE MIDSHIPMEN FROM
THE NAVAL ACADEMY**

by

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June 1999

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BY FEMALE MIDSHIPMEN
FROM THE NAVAL ACADEMY**

Monica E. Mitchell
Lieutenant, United States Navy
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of the requirements for the degree of

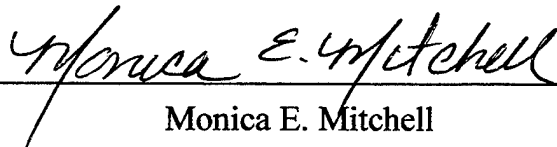
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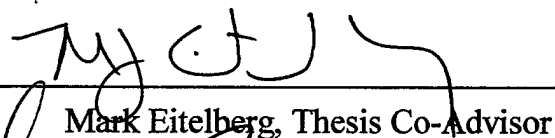
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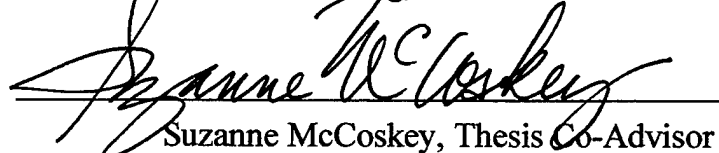
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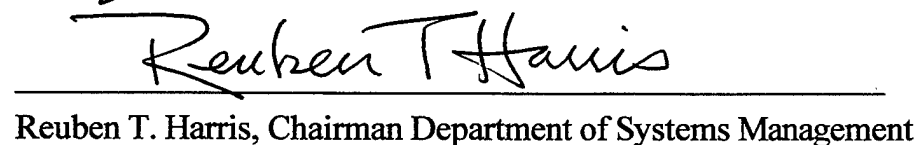
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ABSTRACT

The attrition rate of midshipmen at the Naval Academy is higher for women than for men. This thesis examines the voluntary resignation of female midshipmen from the Naval Academy. Specifically, the study focuses on theories of college student attrition that are based on data from traditional civilian universities. Data obtained from the Naval Academy's Institutional Research Department was analyzed. In addition, in-depth interviews were conducted with 15 female midshipmen and the Chair of the Women Midshipmen Study Group. The interviews were supplemented by statements made in resignation letters. Results of quantitative and qualitative analysis show that a greater number of factors likely influence a female midshipman's decision to voluntarily leave the Naval Academy than a student's decision to leave a traditional civilian university. A major finding drawn from correlation testing on MBTI personality types revealed that the "active" personality type characterized as being the most suited with the military officer profession is highly correlated with voluntary attrition. The personality type is the most represented in the population of female midshipmen. Recommendations addressed several areas of possible improvement and proposed further research regarding female and male midshipmen and voluntary attrition.

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I. INTRODUCTION

A. BACKGROUND

The attrition rate of midshipmen at the Naval Academy is higher for women than for men. The Superintendent of the Naval Academy created the Women Midshipmen Study Group (WMSG) in December 1986 to review progress toward integrating women into the Brigade of Midshipmen. The study group discovered that, although the majority of attrition for both sexes came through voluntary resignations, the percentage of female midshipmen who attrited voluntarily was twice as high as that for male midshipmen.

The 1987 WMSG stated that determining the root cause of voluntary attrition is very difficult. Almost ten years later, the 1996 WMSG report reveals similar attrition findings and shows no progress in identifying the underlying causes. Despite implementing several recommendations, no significant progress has been made toward reducing the attrition rate of female midshipmen.

B. PURPOSE OF STUDY

This thesis examines the factors that affect the voluntary resignation of female midshipmen from the Naval Academy. The objective is to determine if there are identifiable characteristics or beliefs held by female midshipmen that make them likely to resign. This

information should assist in providing informed support for female midshipmen at the Naval Academy. Additionally, the thesis provides a cohesive framework of analysis that the Naval Academy can use to monitor progress toward reducing female attrition in succeeding years, as well as suggestions for data collection and coding.

C. SCOPE/METHODOLOGY

This study seeks to identify and examine factors that contribute to the voluntary resignation of female midshipmen from the Naval Academy. The scope includes: (1) a historical review of the integration of women into the Brigade of Midshipmen; (2) a literature review of reports on Naval Academy attrition, models of college student attrition, and attrition rates of women in medical school programs; (3) an analysis of academic grades, military grades, and Myers-Briggs Type Indicator (MBTI) personality preferences of male and female midshipmen from the graduating classes of 1992 through 1997; and (4) an evaluation of perceptions held by female midshipmen and the current Chair of the WMSG.

D. ORGANIZATION OF THESIS

This thesis is organized into six chapters and four appendices. Chapter II contains historical and background information on the integration of women into the Brigade of

Midshipmen, as well as reviews of pertinent literature related to college student attrition. Chapter III explains the research methodologies employed. Chapter IV presents the empirical results of analysis of data obtained on male and female midshipmen. Chapter V is organized according to recurring themes obtained from interviews and voluntary resignation letters. Chapter VI summarizes conclusions from the research and offers both policy recommendations and suggestions for further research.

II. LITERATURE REVIEW

A. HISTORY OF WOMEN AT THE NAVAL ACADEMY

Following the mandate of the Stratton Bill, women were admitted to the three service academies in the summer of 1976 for the first time in United States history (Durning, 1978). The first female cadets and midshipmen in the Class of 1980 were a noticeable minority attempting to function in a tradition-rich male environment (Durning, 1978, p. 1). Eighty-one women entered the Naval Academy that summer, ending a 131-year, all-male tradition. These first female midshipmen represented approximately 6 percent of the Class of 1980. Of the 81 women who entered the Naval Academy in 1976, 55 went on to graduate and receive a commission as a naval officer (Disher, 1998).

The women of the Class of 1980 broke a long-standing barrier and were required to function in a male-dominated institution with virtually no female role models. Additionally, their relatively small numbers ensured that each female midshipman's actions would stand out and be subject to extensive evaluation. Problems of assimilation were expected, including issues of adjustment for both sexes. As a result, the Naval Academy administration attempted to track the integration process from the

perspectives of male and female plebes in the Class of 1980, as well as those of other midshipmen (Durning, 1978).

Kathleen Durning, a researcher with the Navy Personnel Research and Development Center (NPRDC), developed a questionnaire that was administered at the beginning and end of the 1976-77 academic year. Questions were designed to assess midshipmen's attitudes toward women, opinions about men and women in the military, and opinions on sexual integration at the Naval Academy. In the May survey, women were asked to indicate which of several items on a structured list presented a problem for them during their first year at the Naval Academy. As shown in Table 1, 67 percent of female midshipmen stated that being the object of publicity and male resentment were problems. Additionally, 64 percent felt that male traditions were a problem. Durning concluded that the "numerical rarity" of women at the Naval Academy contributed to the higher-ranking problems of over-visibility and negative male attitudes (Durning, 1978, p.28).

The NPRDC study also discovered that perceptions of the 1976-77 year at the Naval Academy differed greatly between female plebes, male plebes, and upperclassmen. Women generally felt their impact on the Naval Academy had been positive overall, although one-third believed that women had

Table 1

**Problems Experienced by Women in their First Year
at the Naval Academy
1977**

Problem	Percentage Endorsing "This was a problem for me"
Object of publicity as member of first integrated class	67
Resentment or other negative attitudes of male peers	67
Male Traditions	64
Academic Standards	55
Felt I had to prove myself	48
Physical strength standards	36
Emotional response to stress	29
Attitudes conveyed by important officers and/or authorities at the Academy	24
No senior women role models	22
Too few other women in support group	12

Source: K. Durning, *Women at the Naval Academy: The First Year of Integration*, NPRDC report TR-78-12, February 1978.

lowered physical performance standards. Men were more likely to see the impact of women on the Naval Academy's image and standards as neutral or negative, and most were convinced that women had been shown favoritism. Both sexes agreed that men and women as groups tended to compete with one another rather than cooperate toward common goals in the first year of gender integration. Proportionately twice as many women (20.2 percent) than men (10.6 percent) from the Class of 1980 did not finish their first year at the Naval Academy. (Durning, 1978, pp. 31-32)

More than 20 years have passed since women first entered the Naval Academy, but questions still remain as to their acceptance by men in the Brigade of Midshipmen. Studies by the WMSG have attempted to assess issues related to the assimilation of women into the Brigade. At the same time, the Naval Academy has commissioned outside agencies to evaluate gender integration. The first such study was commissioned in direct response to a much-publicized incident that involved the handcuffing of a female midshipman to a urinal.¹

¹On May 13, 1990, press reports first disclosed an incident that occurred in December of 1989 when Midshipman Gwen Dreyer was handcuffed to a urinal in a men's bathroom by two male midshipmen. She subsequently resigned from the Naval Academy.

The Naval Academy Board of Visitors' Committee on Women's Issues was formed in 1990 "to provide an independent appraisal of women's issues." The committee found that women were not yet fully integrated on a fair and equal basis and that the Naval Academy was not immune to problems of racial prejudice and sexual bigotry (BOV-90, pp. 9-12). A Navy Inspector General team, which was conducting an assessment at the same time, found that 31 percent of male midshipmen and 46 percent of female midshipmen thought sexual harassment was a problem at the Naval Academy (BOV-90, p. 12). In addition, a WMSG climate questionnaire for midshipmen in 1990 indicated that 45 percent of entering male midshipmen "disagreed" or "strongly disagreed" with the proposition that women belonged at the Naval Academy; and 38 percent of first-class midshipmen shared that view as they neared graduation (BOV-90, p. 13).

The 1990 WMSG report concluded that the largest stumbling block to women's assimilation was the combat exclusion law, which prohibited women from serving in many of the standard warfare billets required of male graduates. The exclusion of women from combat, according to the WMSG, apparently allowed a persistent, vocal minority of midshipmen, officers, faculty, staff, and graduates to rationalize that women should not be midshipmen (WMSG,

1990). Several years later, another WMSG concluded that relaxation of the combat exclusion law (in 1993) was the single factor most responsible for fostering gender equity at the Naval Academy (WMSG, 1995, p.1). Service assignment opportunities for male and female graduates are now virtually the same.²

The opening of a vast array of career opportunities on board ships and in aviation has allowed the Naval Academy to increase its percentage of women in the brigade. The proportion of women in each class inducted since 1990 has increased from 11 percent in the class of 1994 to 16.7 percent in the class of 1999 (WMSG, 1995, p. 1). At the same time, climate surveys have shown that the proportion of women who felt "fully assimilated" in the brigade rose from 54 percent in 1990 to 90 percent in 1995 (WMSG, 1995, p.1).

Midshipman First Class Alton Stewart, Jr., Class of 1999, believes that animosity toward female midshipmen still exists at the Naval Academy. In an essay published in the U.S. Naval Institute's *Proceedings*, Midshipman Stewart (1998) asserts that this animosity persists in large part because some upperclassmen continue to pass down a tradition

² As of 1999, women were restricted from serving in the submarine and special warfare communities.

of sexism.³ Meg Armstrong (1994) describes this animosity, in part, as an extensive low-level harassment that is primarily verbal and operates like white noise (Armstrong, 1994, p.11). In a report on women at the Naval Academy, Armstrong (1994) states that this type of harassment definitely exists; and, even though both male and female midshipmen may hardly hear it, men are often conditioned to accept it.

In the 23 years since women first entered the Naval Academy, no woman has reached the top of the Herndon Monument during the plebe recognition ceremony. Every year, to shed the title of plebe and be "recognized" as a fourth classman, the members of each plebe class muster a joint effort to climb Herndon, a 20-foot obelisk greased the night before by upperclassmen (Disher, 1998, p.187). The plebes retrieve a symbolic dixie cup straddling the apex of the monument and replace it with a midshipman's combination cover (hat). Tradition holds that the midshipman who performs this feat will be the class's first Admiral. The plebes look forward to this day more than any other. While

³ The Naval Institute is a private, self-supporting, nonprofit professional society that publishes *Proceedings* as a forum for the sea services. The Naval Institute is not part of the U.S. Government. The views and opinions in the magazine are those of the authors and not necessarily endorsed by the Institute.

the women who join in this ceremony are respected and accepted as team players, others are perceived as just pursuing the title of the first women to climb Herndon and are pulled down rather than pushed up by their classmates (Stewart, 1998). Rumor has it that no plebe class of male midshipmen wants to be the first to allow a woman to reach the top. And it has become a male "badge of honor" that no woman has done it thus far.

Aside from the symbolic obstacle of the Herndon monument, the Naval Academy has made considerable strides toward building an environment of acceptance for women. For example, multiple programs, activities, and assessments about women are now conducted at the Naval Academy on a continuous basis. Many observers feel that these initiatives have produced positive changes for women. Yet, as Armstrong (1994) states, the initiatives may have also created a piecemeal approach of duplication, overlap, fragmentation, inconsistency, and gaps. Armstrong theorizes that the torrent of materials on women at the Academy has itself created a barrier of sorts, with no single road map of all the programs, services, activities, and research that support women.

B. MODELS OF COLLEGE STUDENT ATTRITION

Some clues as to why women leave the Naval Academy may be gleaned from general studies of student attrition from college. Students tend to stay in college when they feel integrated into the academic and social communities of the institution (Pascarella and Terenzini, 1983). At the same time, Bean (1990) finds that a student's intention to persist in college is a good predictor of actual student retention, since the behaviors of college students are often strongly tied to attitudes and intentions. Thus, for attrition, certain behaviors may reveal when a student's commitment to college is wavering (Eaton and Bean, 1995, p. 617).

Scholars base most research on student retention on sociological principles and theory, and they tend to focus on groups rather than on individuals. Tinto (1993) developed a sociological model of student retention based on the experiences of minority, adult, and graduate students. This model suggests that student persistence is affected by the degree to which students are integrated into a college's social and academic communities. Social interaction with faculty members and peers may contribute to social integration, while grade performance and intellectual development lead to academic integration. Additionally,

successful integration leads to further commitment to the institution and academic goals, thus contributing to a student's persistence. Pascarella and Terenzini (1983) conducted a series of studies that support Tinto's premise regarding the effect of integration on persistence.

Tinto (1987) analyzed data from the American College Testing (ACT) program surveys of institutions and found that approximately 75 percent of students who depart from college leave during the first two years, with the greatest proportion exiting during the first year of enrollment. Tinto asserts that nearly 85 percent of the departures are voluntary and that they occur even though most students maintain adequate levels of academic performance. Further, voluntary departure appears to be the result of what happens after entry into the institution rather than what may have occurred beforehand. Of particular importance are the interactions between the individual and other members of the college community (students, faculty, staff) inside and outside the classroom. And, the more frequent and rewarding these interactions are perceived by the individual, the more likely they are to persist (Tinto, 1993).

Tinto (1993, p.77) states that, as a group, young women are more likely to depart voluntarily than are their male counterparts; and men are more likely to stay in college

until forced to leave for academic reasons. Tinto infers from this that the press for occupational attainment remains stronger among men:

The implication one draws from such findings is that women's departure, like that of minorities generally, differs from that of men's in a number of ways which extend beyond the boundaries of college. It also seems to mirror the existence of wider social forces which continue, albeit in diminished fashion, to mold the expectations of people regarding the role women ought to play in society. (Tinto, 1993, p. 77)

Adaptation to college is clearly stressful for new students. The college lifestyle requires strategies for adjustment and an environment in which adjustment can occur. An individual's choice of a behavior to cope with a stressful situation is dependent on the personal repertoire of coping behaviors gained from similar experiences (Eaton and Bean, 1995). Therefore, a student's success in adapting to the collegiate environment is likely to indicate the student's intent to stay at the institution. Active students are more likely to persist than are those who seem passive or avoidant (Eaton and Bean, 1995, p. 638).

Hatcher et al.(1992) used Rusbalt's investment model to investigate college student attrition. This theoretical framework is emerging as a general model of commitment, capable of describing the determinants of commitment to a wide variety of human relationships. The study by Hatcher

et al. examined institutional commitment by measuring cumulative grade point average (GPA), academic development, interactions with faculty, and interactions with peers. These variables were selected by using Tinto's framework of college persistence (Hatcher et al., 1992).

The findings of Hatcher et al. show that student persistence can be predicted effectively from the rewards, costs, alternatives, and investments that students associate with their college experiences. Institutional commitment tends to be high to the extent that satisfaction is high, alternatives are poor, and investments are great (Hatcher et al., 1992, p. 1275). Unfortunately, the investment model cannot be used for the selection of new students. Its variables deal with student perceptions concerning their college experiences after they have attended school for some time. This model would be best used to identify at-risk students.

The models of college student attrition described above have not been applied to the unique characteristics and situations at a service academy. Without question, the institutional life at the Naval Academy differs greatly from that of a traditional university. Thus, a legitimate question can be raised whether academic and social integration affect student attrition at the Naval Academy in

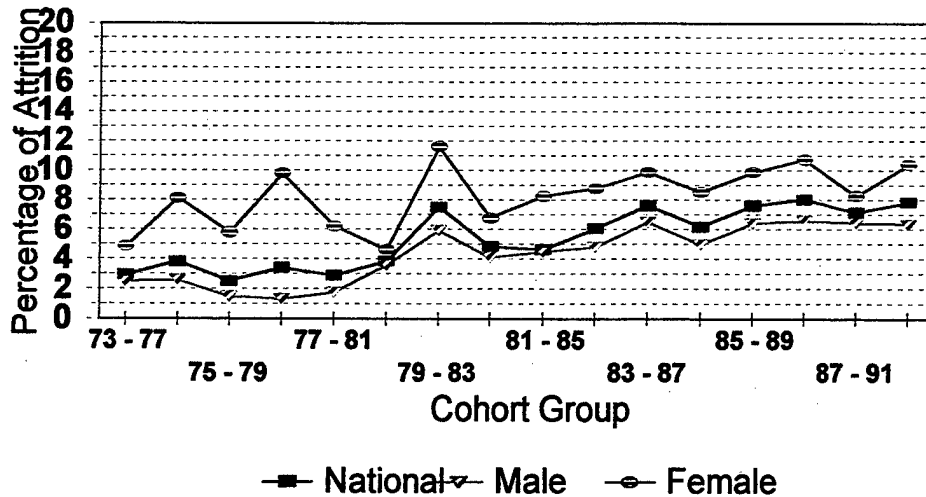
the same manner or degree as at a civilian institution. Not all students are identical, and it is fair to say that the Naval Academy attracts a unique type of high school graduate who possesses characteristics not found in such large numbers at a traditional university. Moreover, most of the studies on college student attrition were conducted in a setting where the student population is fairly evenly divided between men and women.

C. FEMALE ATTRITION IN MEDICAL SCHOOL PROGRAMS

Fitzpatrick and Wright (1995) conducted a longitudinal study of gender differences in medical school by examining the differences in attrition rates between 1973 and 1992. Data for the study came from the annual reports on undergraduate education published in the Journal of the American Medical Association (JAMA). As shown in Figure 1, the study found that percentages of attrition are consistently higher for women than they are for men or for the national population of medical students.

Hubbard, Janssen, and Walker (1993) had similar findings when conducting a study on gender differences in attrition from orthopaedic surgery residency programs. Their survey targeted residents who entered the program during the years of 1980 to 1987 and left prior to completing the residency. The authors found that female

Figure 1
Medical School Attrition



Source: Fitzpatrick and Wright, *Gender Differences in Medical School Attrition Rates, 1973 - 1992*, Journal of the American Medical Women's Association, Vol. 50, No. 6, pp. 204-206, November/December 1995.

residents (14.3 percent) were statistically more likely than male residents (4.6 percent) to withdraw early from the program. The circumstances and reasons for attrition are listed in Table 2. Further, female residents were more likely than their male counterparts to leave voluntarily and for personal reasons.

Table 2

**Circumstances of and Reasons for Leaving Orthopaedic
Residency Training, by Gender, 1980 - 1987
(In Percent)**

Circumstances/ Reasons	Male Residents	Female Residents	Total Residents
Circumstances			
Voluntary	61.2	80.0	63.6
Terminated	38.8	20.0	36.4
Reasons			
<i>Personal Criteria</i>			
Personal	54.6	61.1	55.4
Family/Marriage	1.9	2.3	1.9
Health	3.7	6.7	4.1

Source: Hubbard, Janssen, Walker, *Gender Differences in Attrition from Orthopaedic Surgery Residency*, Journal of the American Women's Medical Association, Vol. 48, No. 6, pp. 182-184, November/December 1993.

A survey of women orthopaedists revealed that 25 percent of respondents would not recommend their residency program to other women applicants. In another survey of women in orthopaedics, 46 percent reported sexual harassment, 65 percent reported sex discrimination, and 68 percent felt they were ignored or received less encouragement than their male colleagues during residency training. Although one might suspect that female residents in programs with small numbers of women would not have sufficient role models or friends for support, the study found that there was no correlation between the number of women in a program and attrition of female residents.

(Hubbard et al., 1993, pp. 183-184)

Fitzpatrick and Wright (1995, p. 204) state that attrition measurement is complex, due to the difficulty of obtaining accurate information and applying consistent definitions. Categorizing reasons for attrition has advantages and disadvantages. The researchers point out that categorization allows for more in-depth analysis, but the categories are not always calculated consistently and one category often includes a combination of individual-level characteristics (Fitzpatrick and Wright, 1995, p. 204).

Comparisons can be drawn between medical school and Naval Academy attrition rates of women. Title IX of the Education Amendments, which removed barriers to female admissions in medical school, was enacted in 1972 (Fitzpatrick and Wright, 1995, p. 204). This occurred only four years prior to the time when women were permitted to enter the service academies.

Both groups of women were entering traditionally-male fields at the same time and most likely faced similar challenges. The medical program studies are purely quantitative and do not address the possible strain on the women in the male-dominated, medical school environment. In

addition, the effect of the increased incidence of depression reported among female residents was not evaluated (Hubbard et al., 1993, p. 184).

D. NAVAL ACADEMY ATTRITION

The Superintendent of the Naval Academy, Rear Admiral R. F. Marryott, created the WMSG in December 1986, 10 years after women were first admitted to the Naval Academy. The WMSG was asked to review progress toward integrating women into the Brigade of Midshipmen and to develop recommendations for improving their assimilation. To accomplish this objective, the WMSG undertook a comprehensive review of six areas: attrition, admissions, academic performance, military performance, physical performance, and brigade life. The group established a goal to look beyond rumors and stories, seeking instead the underlying trends and the root causes of possible impediments to assimilation (WMSG, 1987). Their research sources included:

- Published and unpublished studies about women in the military and other non-traditional careers;
- Previous Naval Academy reports, instructions, catalogs, and studies related to female midshipmen;
- Data gathered from attrition, admissions, registration, academic, commissioning, graduation, military performance, medical, and athletic records;

- Numerous discussions with key administrators at the Naval Academy; and
- Group discussions with representatives randomly selected from various groups at the Naval Academy.

In April of 1990, Rear Admiral V. L. Hill, the Naval Academy Superintendent, reconvened the WMSG. The WMSG was tasked to review the status of recommendations from the WMSG-87 report and to assess the Brigade climate. The WMSG became a standing committee at the Naval Academy in January 1991. Currently, the WMSG meets four times per semester.

1. The 1987 WMSG: Attrition Findings

The first area of inquiry for the 1987 WMSG concerned rates of female attrition and how they compared with those of men at the Naval Academy or women at the other service academies. As shown in Table 3, the WMSG found that, since their arrival at the Naval Academy, female midshipmen attrited at a significantly higher rate than did male midshipmen. For the first eight classes with women (1980-1987), the average attrition rate of men (22.9 percent) averaged 12.2 percentage points less than the average attrition rate of women (35.1 percent). (WMSG, 1987, pp. 5-9)

The overall attrition rate of men and women at the Naval Academy has been lower than the attrition rates of

cadets at the United States Military Academy (USMA) and the United States Air Force Academy (USAFA). There is a much greater difference, however, between attrition rates of men and women at the Naval Academy (12.2 percentage points) than at USMA (7.9 percentage points) or at USAFA (6.2 percentage points). With the graduating classes of 1986 and 1987, the attrition rate of women at the USMA and USAFA dipped below that of the Naval Academy for the first time. (WMSG, 1987, pp. 6-7)

Table 3

**Number of Midshipmen Inducted and Attrition Rates (Percent),
by U.S. Naval Academy Graduation Class and Gender,
1980 - 1987**

Grad Class	Number Inducted			Attrition Rates			Difference F-M	Percent of Women	
	Male	Female	Total	Male	Female			Admissions/Grads	
1980	1,214	81	1,295	26.5	32.1	5.6	6.3	5.8	
1981	1,239	90	1,329	26.9	33.3	6.4	6.8	6.2	
1982	1,268	96	1,364	22.3	34.4	12.1	7.0	6.0	
1983	1,315	90	1,405	21.8	41.1	19.3	6.4	4.9	
1984	1,150	100	1,250	18.2	37.0	18.8	8.0	6.3	
1985	1,220	109	1,329	23.4	30.3	6.9	8.2	7.5	
1986	1,238	97	1,335	22.1	33.0	10.9	7.3	6.3	
1987	1,252	111	1,363	21.7	36.9	15.2	8.1	6.7	
AVERAGE	1,237	97	1,334	22.9	35.1	12.2	7.3	6.2	

Source: WMSG, *Report to the Superintendent on the Integration of Women in the Brigade of Midshipmen*, United States Naval Academy, November 1987.

Attrition can be categorized generally as either voluntary or involuntary. The Naval Academy can discharge a midshipman involuntarily for academic or military performance deficiencies, conduct or honor offenses, and

medical reasons. Prior to the start of his or her second class year (i.e., junior year), a midshipman may choose to leave voluntarily without incurring a service obligation. After the start of classes in the second class year, most midshipmen who are discharge for any reason (other than medical) must serve two years in the fleet or reimburse the government for educational expenses. As a result, a majority of voluntary attrition occurs during the plebe and "youngster" years (i.e., freshman and sophomore years, respectively).

Reasons for the attrition of men and women at the Naval Academy clearly differ. The 1987 WMSG report states that, although the majority of attrition for both sexes comes through voluntary resignations, the percentage of female midshipmen who attrited voluntarily between 1980 and 1987 was twice as high as the percentage of male voluntary separations. This finding is similar to the overall attrition rate. At the same time, the percentages of men and women who attrited in every involuntary category (i.e., were forced to leave the Naval Academy) are virtually the same.

The 1987 WMSG report states that it was very difficult to determine the root cause of voluntary attrition (WMSG, 1987, pp.8). In an attempt to help determine the reasons

for voluntary resignation, the Registrar conducted an exit interview with each plebe who left the Naval Academy voluntarily. The questions covered a broad spectrum of opinions about experiences at the Naval Academy, including academic, social, and professional factors. However, the questions and answers were so general that only superficial reasons for leaving were revealed. Furthermore, the questions were the same for men and women. The 1987 WMSG recommended that a new format for exit interviews be developed to better illustrate reasons why women's attrition is so much higher than that of men (WMSG, 1987, p. 10).

2. The 1996 WMSG: Attrition Findings

The 1996 WMSG reported findings that were similar to those of the 1987 WMSG. As seen in Table 4, the attrition rate for female midshipmen in the class of 1996 showed an upward trend to 34.9 percent, and the difference between the rates of men and women reached its highest level (10.2 percentage points) since 1992. Of note, the class of 1996 graduated the highest number of women in the history of the Naval Academy, and the percentage of graduates who are women increased to a high of 12 percent.

Table 4

**Number of Midshipmen Inducted and Attrition Rates (Percent),
by U.S. Naval Academy Graduation Class and Gender,
1988 - 1996**

Grad Class	Number Inducted			Attrition Rates		Difference F-M	Percent of Women	
	Male	Female	Total	Male	Female		Admissions/Grads	
1988	1,245	113	1,358	21.2	29.2	8.0	8.3	7.5
1989	1,239	138	1,377	20.4	31.9	11.5	10.0	8.7
1990	1,220	143	1,363	25.4	31.5	6.1	10.5	9.7
1991	1,203	119	1,322	27.4	31.9	4.5	9.0	8.5
1992	1,208	149	1,357	22.6	35.6	13.0	11.0	9.3
1993	1,269	131	1,400	23.0	30.5	7.5	9.4	8.5
1994	1,105	136	1,241	23.7	25.8	2.1	11.0	10.7
1995	996	146	1,142	19.7	27.4	7.7	12.8	11.6
1996	1,073	169	1,142	24.7	34.9	10.2	13.6	12.0
AVERAGE	1,173	138	1,311	23.1	30.1	7.8	10.6	9.6

Source: WMSG, *Report to the Superintendent on the Status of Women in the Brigade of Midshipmen*, United States Naval Academy, November 1996.

The WMSG reports have made more than 50 recommendations throughout the past 12 years to help assimilate women into the Brigade of Midshipmen. Many recommendations have been implemented, and some have not. These recommendations have ranged from restructuring the format of exit interviews for female midshipmen who voluntarily resign to creating small group discussions where male and female midshipmen can talk freely about sexual harassment issues.

Despite the implementation of numerous WMSG recommendations, the attrition rate for women continues to be noticeably higher than that of men. No single cause has been found to explain why women's attrition is higher, especially voluntary attrition during the plebe and

youngster years. Are women leaving because of fear of academic failure due to the highly technical curriculum? Because of harassment or discrimination? Discomfort with the male environment? Absence of a support system? Apprehension over the post-graduation service commitment? A desire for more traditional careers or lifestyles? These are questions that are yet to be answered in 1999. (WMSG, 1987, p. 10)

E. SUMMARY

This study incorporates several ideas from the literature in an effort to portray a comprehensive picture of female midshipmen's attrition at the Naval Academy. Although methodology, data sets, and objectives obviously differ between studies, each contributes in its own way to the study of Naval Academy attrition. For example, Tinto's (1993) theory that women are more likely to voluntarily leave college due to societal pressures can be directly applied to the traditionally male-dominated military institution. It is also possible to deduce that women, as a group, might have personality types that do not allow them to successfully cope with the stressful environment at the Naval Academy.

It may not be possible for this study to specify the single root cause of voluntarily attrition at the Naval

Academy, but it is possible to distinguish individual characteristics and behaviors of individuals that make them more likely to leave. Tinto (1993) believes that, to be effective in assessing attrition, multiple methods of data analysis must be used. For example, it is not possible to capture the reasons for student attrition in statistical analysis alone. As a result, this study uses both quantitative and qualitative methods to analyze voluntary attrition of female midshipmen at the Naval Academy.

III. METHODOLOGY

A. INTRODUCTION

This thesis uses both quantitative and qualitative methods to analyze voluntary attrition of female midshipmen at the Naval Academy. Data were obtained from the Naval Academy's Institutional Research Department. In addition, in-depth interviews were conducted with 15 female midshipmen and the Chair of the Women Midshipmen Study Group (WMSG). The interviews were supplemented by statements made in resignation letters submitted by female midshipmen who voluntarily left the Naval Academy. This comprehensive approach is used in an effort to produce objective data that could be combined with personal insight into a female midshipman's experience at the Naval Academy to better understand why women voluntarily resign.

B. QUANTITATIVE METHODOLOGY

1. The Data

The data used for this study were obtained from the Naval Academy's Institutional Research Department. The sample includes all male and female midshipmen from the classes of 1992 through 1997. These midshipmen entered the Naval Academy between 1988 and 1993.

Information was obtained on enrollment status, reason for attrition (if applicable), Myers-Briggs Type Indicator (MBTI) personality preference, last semester enrolled, Academic Quality Point Rating (AQPR), and Military Quality Point Rating (MQPR). AQPR is the cumulative grade point average on a 4.0 scale of a midshipman in all academic courses. MQPR is the cumulative grade point average on a 4.0 scale in all military areas -- military performance, conduct, physical education, and professional development courses. Selection of variables is driven by a desire to test Tinto's (1993) theory of academic integration and Eaton and Bean's (1995) theory of personality type, described in Chapter II, not to evaluate the vast array of variables that have at one time or another been associated with attrition.

For the purposes of this study, categories of voluntary attrition are grouped into two categories: voluntary resignation during plebe summer and voluntary resignation during the academic year. The Registrar's Office assigns voluntary attrition codes based on the statements made by midshipmen in voluntary resignation letters. Voluntary resignation can be classified as either for "motivation," "personal," "academic," or "other" reasons. A cursory review of the attrition codes for the data sample shows that a majority of voluntary resignation is classified as

"motivation." Questions posed to the Registrar's Office revealed that assignment of the voluntary resignation code is entirely subjective, and no written document governs this process.

2. Data Analysis

The data are analyzed using SPSS software. Descriptive statistics are computed using frequencies, means, standard deviations, and cross tabulations to characterize the data. Hypothesis testing is used to test Tinto's (1993) theory on the effects of academic integration on voluntary attrition and the greater likelihood of a larger proportion of women to voluntarily depart college.

First, in terms of AQPR and MQPR, we expect the average of women to be lower than that of men because a greater proportion of female midshipmen voluntarily attrite from the Naval Academy. Therefore, the null (H_0) and alternative (H_A) hypotheses are as follows:

H_0 : μ Female Midshipman AQPR \geq μ Male Midshipman AQPR

H_A : μ Female Midshipman AQPR $<$ μ Male Midshipman AQPR

and

H_0 : μ Female Midshipman MQPR \geq μ Male Midshipman MQPR

H_A : μ Female Midshipman MQPR $<$ μ Male Midshipman MQPR

"One-tailed" tests are again used to determine significance at the .05 level.

Similar hypothesis testing is used to test the proportion of female midshipman voluntarily attriting to the proportion of male midshipman voluntarily attriting. Therefore, the null and alternative hypothesis are stated as follows:

- H_0 : % Female Midshipman voluntary attrition \leq % Male Midshipman voluntary attrition
 H_A : % Female Midshipman voluntary attrition $>$ % Male Midshipman voluntary attrition

"One-tailed" tests are again used to determine significance at the .05 level. The quantitative analysis concludes by using Pearson correlation coefficients to measure the relationship of AQPR, MQPR, and MBTI personality preference with voluntary attrition.

C. QUALITATIVE METHODOLOGY

1. Data Collection

The qualitative portion of this thesis uses information obtained through in-depth interviews with 15 female midshipmen attending the Naval Academy in 1999. In addition, Captain Jo Dee Jacob, Chair of the WMSG in 1999, was briefly interviewed to obtain her thoughts on why female midshipmen voluntarily resign from the Naval Academy. She is required to conduct interviews with all female midshipmen prior to their departure. The information obtained from

these interviews was supplemented by statements made by female midshipmen in voluntary resignation letters.

The 15 female midshipmen selected for interviews represent all classes currently attending the Naval Academy (i.e., Classes of 1999, 2000, 2001, and 2002). The Brigade of Midshipmen is divided among 30 Companies for organizational purposes. A random number generator was used to select which Companies the interviewee would come from with the constraint that there would be no more than one interview per Company.

After 15 Companies were selected, a random number generator was used to match a class to a Company with the constraint that no more than four midshipmen would be interviewed from each class. The constraints were used in an effort to account for differences in the Companies and classes. Once the Company and class were determined, the respective Company Officer was asked to provide the name of a female midshipman from the selected class.

Fifteen in-depth interviews were conducted with female midshipmen and the Chair of the WMSG to determine various influences on a female midshipman's decision to voluntarily leave the Naval Academy and to ascertain the current level of acceptance of women in the Brigade of Midshipmen. Each interview was conducted in a private room to inspire casual

conversation and candid responses to the questions. The interviews were kept conversational in nature to allow the subject to relax and talk more openly. The interviewee was informed that the conversation was recorded for purposes of accuracy, and that no data traceable to the individual would be used. The recording of the interview was then transcribed, verbatim, for ease of analysis.

Although the female midshipmen selected to be interviewed have not actually left the Naval Academy, the interview questions are designed to obtain information about the women they know who have left voluntarily. Additionally, the questions are geared toward identifying times when the interviewee has considered leaving the Naval Academy. The interview questions are open-ended and allowed the subjects to openly discuss any matter she felt relates to the issue addressed. A list of the interview questions can be found in Appendix A.

The interviewee occasionally gave responses that required additional questioning to clarify or distinguish answers. The additional questions prompted by responses in earlier interviews sometimes became part of the base questions in later interviews. This was done without any intention to prejudice answers, but rather to acquire different insight regarding points of view.

In an effort to capture the opinions of women who have actually left the Naval Academy, copies of voluntary resignation letters were obtained from the Registrar's Office and used to supplement information obtained in the interviews. Midshipmen are required to specify in the letter their own reasons for coming to the Naval Academy, reasons for resigning, and future goals and plans (USNAINST 1920.1A, 1993). The Registrar's Office provided a total of 40 voluntary resignation letters. The sample is evenly divided between the Classes of 1999, 2000, 2001, and 2002. The name and social security number of the individual were blacked out by the Registrar's Office to ensure privacy.

2. Data Analysis and Theme Development

The data were compiled on templates (see appendices B and C) and then analyzed through the use of content analysis to identify trends and recurring issues related to reasons for voluntary attrition and acceptance of female midshipmen in the Brigade of Midshipmen. These data were then grouped together with other data collected that contained similar issues.

Themes were then developed by analyzing the data groupings of recurring issues or topics and determining the underlying points made by the interviewees. These themes are presented in Chapter V along with support justification.

Each justification is reinforced with quotations that exemplify the opinions of the female midshipmen.

IV. QUANTITATIVE DATA ANALYSIS

A. OVERVIEW

This chapter presents and analyzes the data employed in this study. In an effort to characterize the data, the first section examines observed frequencies and cross tabulations. The second section of this chapter uses hypothesis testing to identify the effects of academic integration on voluntary attrition and the greater likelihood of a larger proportion of women to voluntarily depart college. In the third section of this chapter, correlation coefficients are used to measure the relationship of AQPR, MQPR, and MBTI personality preference with voluntary attrition.

B. NAVAL ACADEMY SAMPLE AND INITIAL ANALYSIS

The sample obtained from the Institutional Research Department at the Naval Academy includes all men and women in the graduating classes of 1992 through 1997. The sample consists of a total of 7,345 midshipmen. Of the sample, 6,480 midshipmen (88.2 percent) are male and 865 midshipmen (11.8 percent) are female.

The retention rate for this sample is 79.0 percent. The overall attrition rate for men (19.9 percent) averaged 9.1 percentage points less than the overall attrition rate

for women (29.0 percent). A majority of the attrition for both genders came from the two voluntary categories: voluntary resignation during plebe summer (16.8 percent) and voluntary resignation during the academic year (44.9 percent). As Figure 2 shows, out of total attrition, the percentage of voluntary attrition for female midshipmen (70.9 percent) is considerably higher than the percentage of voluntary attrition for male midshipmen (59.9 percent). Figure 3 breaks the sample down by category of attrition and gender.

Voluntary attrition for both genders primarily (90.4 percent) occurred during the first two years of attendance at the Naval Academy (i.e., plebe summer through the summer prior to the start of the second-class/junior year). This agrees with Tinto's (1993) finding that most college students depart within the first two years. Figure 4 shows that a majority of voluntary attrition occurs after plebe summer and prior to the start of the junior year when a service obligation is incurred. The average percentage of

Figure 2
Voluntary vs. Involuntary Attrition

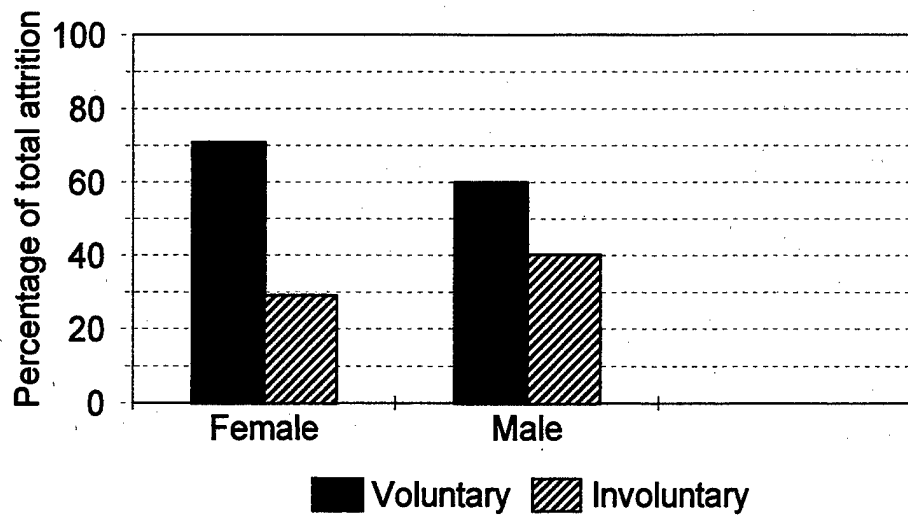


Figure 3
Categories of Attrition

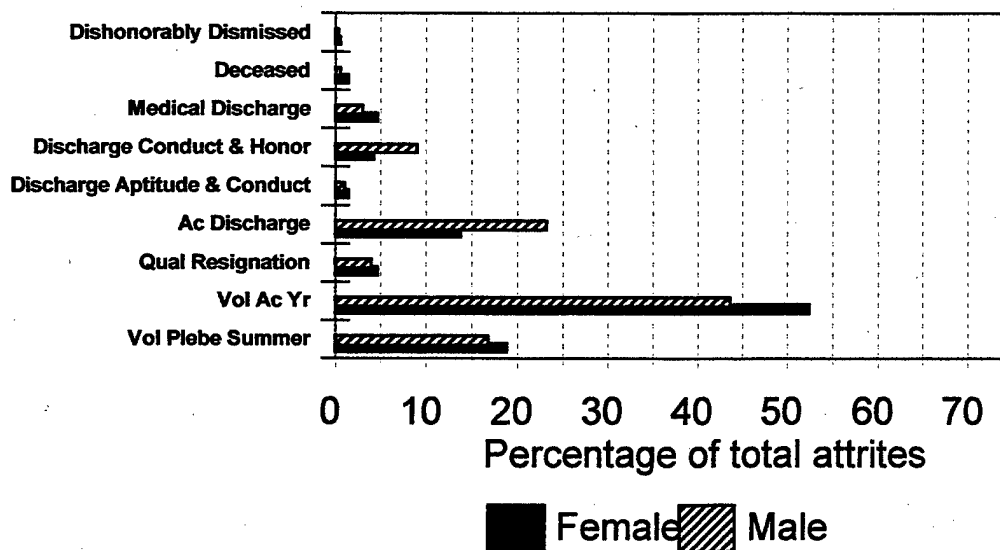
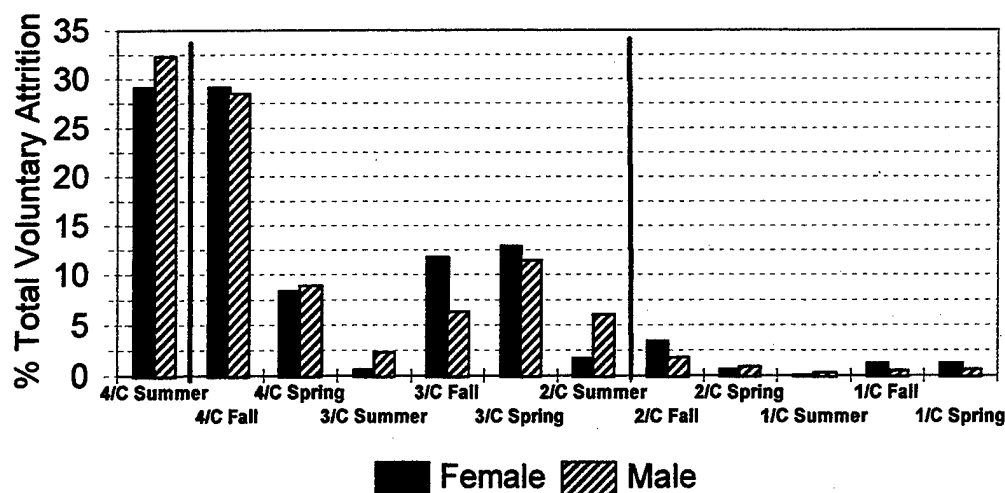


Figure 4
Voluntary Attrition by Semester



female midshipmen who voluntarily resigned during plebe summer is similar to the percentage of male midshipmen who resigned.⁴

C. HYPOTHESIS TESTING

Hypothesis testing conducted on the sample mean for academic and military QPR and the sample proportion of voluntary attrition substantiates presumptions made about Naval Academy midshipmen. Table 5 shows that hypothesis

⁴ A data discrepancy was identified between the number of men and women assigned to the voluntary resignation plebe summer attrition code and the number of men and women having plebe summer identified as their last semester enrolled. This discrepancy accounts for the differences between men and women assigned to plebe summer in Figures 3 and 4. The variance was considered negligible.

testing performed on these presumptions resulted in the rejection of H_0 for all three cases at the .05 level of significance. The conclusion is that H_A is true for all three cases. Therefore, female midshipmen have a lower AQPR and MQPR than male midshipmen and female midshipmen voluntarily attrite at a higher proportion than do male midshipmen.

Table 5

SAMPLE EVIDENCE	HYPOTHESIS	REJECTION CRITERIA*	RESULT
Mean female AQPR = 2.38 Mean male AQPR = 2.55	H_0 : Female AQPR \geq Male AQPR H_A : Female AQPR $<$ Male AQPR	$Z < -1.645$	$Z = -4.61$ Reject H_0
Mean female MQPR = 2.70 Mean male MQPR = 2.91	H_0 : Female MQPR \geq Male MQPR H_A : Female MQPR $<$ Male MQPR	$Z < -1.645$	$Z = -5.44$ Reject H_0
% of total attrition that is voluntary: Female - 70.9 Male - 59.9	H_0 : % female voluntary attrition \leq % male voluntary attrition H_A : % female voluntary attrition $>$ % male voluntary attrition	$Z > 1.645$	$Z = 3.47$ Reject H_0

*Significant at the 0.05 level (1-tailed)

D. CORRELATIONS

1. Academic and Military Performance

Tinto (1993) found that voluntary departure occurs even though most students maintain adequate levels of academic performance in a traditional college environment. An analysis of the Naval Academy sample reveals the opposite to be true. AQPR and MQPR were positively correlated with non-voluntary attrition at the .01 level of significance (see Table 6). Therefore, as AQPR and MQPR increased on a 4.0 scale, a midshipman was more likely to attrite involuntary rather than for voluntary reasons. This phenomenon is unique to service academies. A midshipman attending the Naval Academy is held to a higher standard of personal and professional conduct than a student attending a civilian university. For example, a midshipman may have passing grades (i.e., above a 2.0), but may be forced to leave the Academy if he or she violates an honor/conduct rule or does not pass a physical performance test.

Figures 5 and 6 break the sample down by category of attrition and average QPR, academic and military, respectively. The numbers in parentheses denote the number of women and men observed in each category of attrition. The average QPR may be artificially high due to the low number of observations. As expected, average AQPR and MQPR

in the voluntary category are lower than those of involuntary attrition. The QPR for midshipmen who voluntarily resigned during plebe summer is missing because they left prior to grade assignment. Of significance, the average AQPR and MQPR for men and women are markedly different in the medical discharge category.

Remarks made in the interviews hinted that women with medical problems are treated differently than are men with medical problems (i.e., peers are more likely to believe that the male midshipman's problems are "real"). A major portion of military QPR is determined by a midshipman's peers. As a result, if a midshipman is perceived to be faking a medical problem, a lower performance grade may be assigned. Female midshipmen with medical problems may receive lower military QPR grades based on this perception and may lose motivation to perform well in the classroom, resulting in a lower academic QPR.

Table 6

		AQPR	MQPR
Attrition Type	Pearson Correlation	.303**	.385**
	Sig. (2-tailed)	.000	.000
	N	1541	1542

**** Correlation is significant at the 0.01 level (2-tailed)**

Figure 5

Cumulative Academic QPR

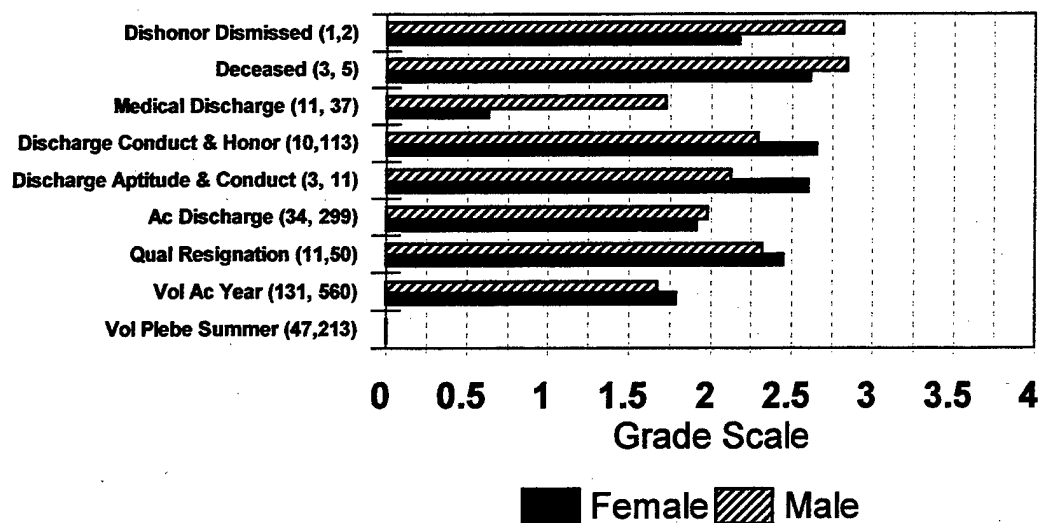
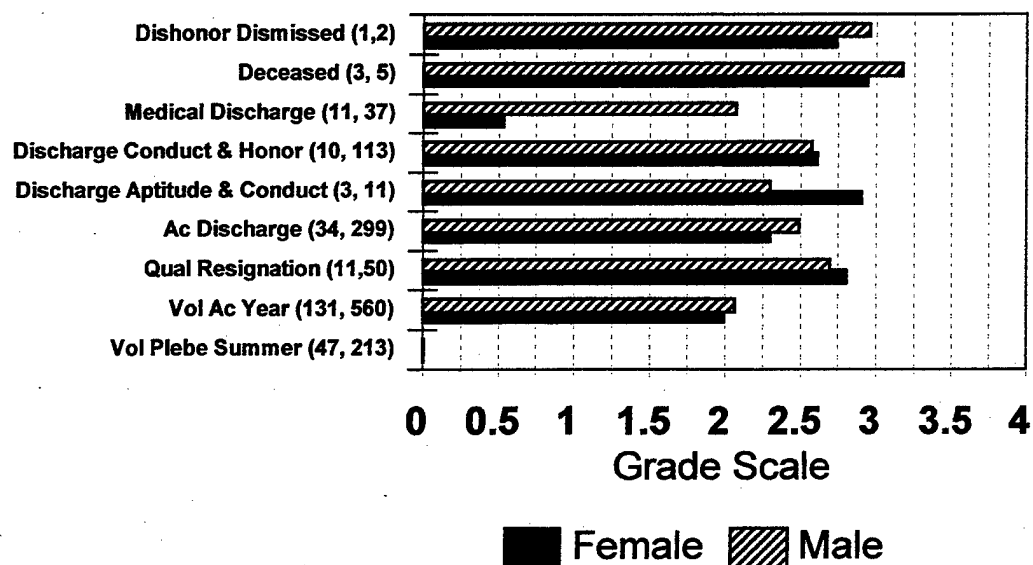


Figure 6

Cumulative Military QPR



2. Personality Preferences

Five MBTI personality types have statistically significant relationships with voluntary attrition. These results are shown in Table 7. The results counter findings in previous studies (Eaton and Bean, 1995) that have shown active students are more likely to persist in college than those who seem passive and avoidant. Three "passive" MBTI personality types (INFP, ISFP, INTP) are positively correlated with persistence (i.e, intent to remain at the Academy) at the .01 level of significance. Additionally, when the sample consists of only women, the INTP personality type is positively correlated with persistence at the .05 level of significance. One "active" personality type (ESTJ) is negatively correlated with persistence at the .01 level of significance.

Positive correlation increases the likelihood that the midshipman possessing that particular personality type will successfully graduate from the Naval Academy. Table 8 provides characteristics commonly associated with the personality types that were found to have a statistically significant relationship with persistence at the Academy. Ironically, the ESTJ personality type that is most suited with the military officer occupation has a significant relationship with voluntary attrition (Baron, 1998, p.61).

Table 7

	Correlation	Sig. (2-tailed)	N
ESTJ	-.053**	.000	7345
ENFP	.046**	.000	7345
INFP	.051**	.000	7345
ISFP	.039**	.001	7345
INTP	.032**	.006	7345
INTP (women only)	.076*	.025	865

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed)

Table 8
Personality Type Description

ESTJ	relish responsibility, must control personal domain, like to be in-charge, meet challenges head-on, opinionated, enjoy a stable predictable environment, rigid, demanding, impatient
ENFP	outgoing, dynamic, lively, spontaneous, good sense of humor, inspiring/charismatic leaders, improvise, think on feet
INFP	gentle, calm, easygoing, affirming, believe integrity and commitment are essential, go about tasks in an inconspicuous way, assume leadership in group whose values are in accord with their own, work patiently with complex tasks, contain feelings
ISFP	easygoing, likable, live and let live attitude, quiet, reserved, don't call attention to themselves, loyal, gentle, compassionate, little desire to control or compete
INTP	quiet, reserved, self-reliant, highly independent, precise, concise, articulate

Source: R. Baron, *What Type am I? Discover Who You Really Are*, Penguin Books, 1998.

As stated previously, a majority of voluntary attrition occurs within the first two years of attending the Naval Academy. This period of time is the most demanding for a midshipman. During their first year at the Academy, midshipmen are under constant supervision and are constantly being told what to do by upper-class midshipmen. Based upon the description provided in Table 8, it is easy to see how midshipmen possessing the ESTJ personality type would be at conflict with their environment.

For example, a midshipman classified as having an ESTJ personality type might be at odds with the fact that his or her "opinions" are not desired nor appreciated during the first two years at the Academy. Additionally, due to the limited number of leadership positions available, the midshipman may not have an opportunity to be "in-charge." Perhaps, the "passive" personality types are more suited to surviving the first two years at the Academy. As a result, once the service obligation is incurred at the beginning of the second-class (i.e., junior) year these midshipmen will have a greater propensity to graduate from the Academy.

The sample breakdown by MBTI personality type, provided in Appendix D, shows that the Naval Academy attracts a greater proportion of the personality types characterized as "active" (Baron, 1998). Additionally, it shows that the

Academy attracts a greater proportion of women possessing "active" personality types than is represented in the United States population.

V. QUALITATIVE DATA ANALYSIS

A. OVERVIEW

The data analysis yielded ten prominent themes. These themes are presented along with supporting justifications. Each justification (except for Theme I) is reinforced with excerpts and/or quotations that exemplify the opinions of female midshipmen expressed in the interviews or resignation letters.

B. THEME I: MOST INTERVIEWEES CAME FROM A TWO-PARENT HOUSEHOLD

1. Theme

Thirteen of the 15 female midshipmen interviewed were from two-parent households. This number includes two female midshipmen who were raised in a household with their mother and step-father. Of the remaining two interviewees, one had a mother who was deceased and the other lived with her mother who never remarried after divorce. Eleven of the 13 female midshipmen from a two-parent household also had two working parents. The remaining two female midshipmen from two-parent households were raised in a "traditional" family setting, with the father working outside the home and the mother at home.

2. Justification

This theme was derived from demographic information taken from the female midshipmen during the interviews. Even in those instances where both parents worked, a majority of the jobs held by the mothers could generally be classified as traditional female jobs. For example, several of the mothers worked as a teacher, nurse, secretary, or bank teller. Only one female midshipman had a mother with prior military service.

C. THEME II: MOST INTERVIEWEES WERE EXPOSED TO THE MILITARY AT A YOUNG AGE

1. Theme

Virtually all of the female midshipmen interviewed had some kind of exposure to the military at a young age. Exposure ranged from having a father or other close relative who served briefly in the military during a war to having a father and mother who made the Armed Forces a career. In many cases this person was a role model and influenced the individual in some way to join the military. Service exposure included all four branches of the military, the Army, Navy, Air Force, and Marine Corps.

2. Justification

Among the female midshipmen interviewed, nine had fathers who had served in a branch of the Armed Forces. Five of the remaining female midshipmen were exposed to the

military through a sibling, aunt, uncle, or grandfather.

Only one female midshipman had no military exposure prior to attending the Naval Academy.

One Fourth-Class Midshipman (I02)⁵ had military exposure from several relatives in her family:

My father is a 1970 graduate from the Naval Academy and my grandfather and two uncles are all '45 grads from the Naval Academy. My two cousins graduated from the Citadel. My aunt is in the Marine Corps.

She went on to explain how she became interested in attending the Naval Academy:

When I was nine years old, my dad's my best friend, took me on his lap and started going through his Academy year book. He started telling stories, and it sounded really exciting to me. I think what first got me into it was that it seemed to have so much prestige and history and it really seemed an exciting thing to do. I really felt that if I wanted to do something with my life this would be the best way to do it. I'm really proud of my country and I always really wanted to do it. My parents tried to talk me out of it several times because I'm really imaginative and really emotional and I have very strong personality. My mom, especially, didn't think that I would fit with the Academy. My dad said he wanted to make sure that I was doing this because this is what I

⁵ The code that appears here and elsewhere in parentheses (e.g., I02) are used to identify the interviewee and to locate the corresponding transcript and data sheets for the interview. A number in parentheses preceded by the letter R (e.g., R00-9) identifies a resignation letter. These codes contain no identifying information on the individual.

wanted to do. I didn't get in my first year so I went to University of Texas for a year and tried again. I've wanted to come here for 10 years and this is just like my dream come true.

A Third-Class Midshipman (I06) heard stories about about the Naval Academy from both of her parents:

My father is a graduate of the Naval Academy, so that's one of the reasons why I came. My mom also works for the Navy. She started when I was 16. She was a secretary and then she went into contracting. My dad retired from the reserves about three years ago. My parents were always telling me stories about how great the Naval Academy was. My mom dated my dad the entire time he went here.

A Second-Class Midshipman (I12), whose mother and father retired from the Air Force, had this to say:

My parents are both retired Air Force enlisted Master Sergeants. My older brother was enlisted in the Army for five years. I actually started learning about the Naval Academy by the time I was in 9th Grade. By the time I was a sophomore in high school, I was definitely coming to a service academy. It was a decision of which one at that point and what career field I wanted to focus on. Maybe even earlier than 9th grade, but it was my 9th grade year that I started focusing on preparations for academies. Growing up in a military environment definitely influenced my decision. My parents only influence was that if I was going to enter the military, I was going in as an officer.

A First-Class Midshipman (I13), whose father had served in the Army during Vietnam, explained how visiting her sister at the Naval Academy influenced her decision:

I have an older sister. She graduated from here (the Naval Academy) last year. I would come and visit my sister all the time. At first I thought

she was crazy for coming here because I'm less of a rules person than my sister. I was more wild and crazy during high school. I looked at all the other colleges and nothing seemed to stick out. I really thought the Naval Academy would offer me something different than just like a college degree. And I would be able to travel a lot if I went here. So, I decided to join up and see what happened.

A Second-Class Midshipman (I11) discussed how her father introduced her to West Point at a young age:

I always wanted to go to West Point. Ever since I visited when I was in fifth grade when my dad took me. I liked everything about it. I was a little kid and it left an impression. Everything was so strict, nice, and organized. I didn't get into West Point and I got a principle nomination to come here (the Naval Academy). I took it.

A Fourth-Class Midshipman (I03) explained how she became interested in attending the Naval Academy from her father:

My dad had a lot to do with it actually. He's the one who actually suggested it when I first started looking at colleges. He said you know you should start looking at this for your grades and it's a good opportunity for you. And I started looking at it . . . I probably would never have looked at it if he didn't mention it to me. That was a big part of it. My parents were very supportive of me coming here.

Similarly, another Fourth-Class Midshipman (I04), whose father served in the Air Force during Vietnam, was influenced by her parents to attend the Naval Academy:

I don't know when I completely decided to come to the Naval Academy. We used to boat around this area so I would see the midshipmen. I thought that would be kind of neat. I think if my

parents, if my mom and my step-dad hadn't pushed so hard, because they really liked this choice, that I would have been pushing harder to go to another school. I think, probably, I always wanted to come here. It was just something that I wasn't willing to admit to myself. I was mainly influenced by my parents to come here. I mean they were just so overly enthusiastic about it. I was looking at other schools, too, that I thought were nice. We would go visit the other schools and my parents would say you know the Naval Academy is much nicer than here.

A female midshipman (R00-10) expressed in her resignation letter how family military experience influenced her decision to attend the Academy:

I came to the Naval Academy looking for a good education. My brothers both came here and my father is in the military, so I had a lot of unspoken pressure to come here, or so I felt.

D. THEME III: MOST INTERVIEWEES ADJUST THEIR BEHAVIOR TO BE ACCEPTED BY THE MALE MIDSHIPMEN

1. Theme

Most of the female midshipmen change their behavior or increase their tolerance of male behavior to be accepted by the male midshipmen. There is a perception that acting in a traditionally "female" manner hinders success in the Naval Academy environment. Some women resent the fact that they cannot act like a "girl."

2. Justification

A Third-Class Midshipman (I05) explained that she changed her behavior by becoming more tolerant of male conversations:

I think a lot of the reason that girls are perceived the way they are is because some girls don't change the way that they act to fit into the environment. I mean, I'm not talking about changing your personality and all that stuff but there is a certain way you have to act. A lot of the girls don't. So, I would definitely say that it's not just the guys who make that perception stay alive. But to answer the question, I would say yes I had to change the way I acted a little bit. But it was a natural change to fit the environment. Like if I were sitting around the table at home and there were guys there and some guy made an off-color comment, before I would have been like, I wouldn't have gotten offended, I don't get easily offended, but I would have said you just sounded like a jerk. But there are some things here, things that would have bothered me before don't bother me now. Because I realize what kind of environment we are in. I just think that where as before I would have been more judgmental about guy behavior I'm not anymore.

A First-Class Midshipman (I13) explains how she found a happy medium between her true self and the way she acts in front of the male midshipmen to earn their acceptance:

I have to find a happy medium. Just be accepted first and then you can go your own way. You have to show them that you are confident in yourself. That you can do things they can do. Like sort of prove yourself to them. I am as physically as strong as you. I'm as smart as you. You can't take what they say harshly, don't show that it affects you. When you're around them you have to appease them. Not appease them, but act like them to fit in a little bit, in a way that you still keep who you are and your own opinions. Be able to say your opinions without making them argumentative. As I moved up, it was a lot easier to do that without changing who I was. Without completely giving in to how they are. It's confusing to explain. Like I can go up to the biggest jerk in the company when I don't like what he is saying and he'll apologize. If I was the girl that he doesn't like in our company and she

came up and said something like that there would be this huge argument that ensues.

A Fourth-Class Midshipman (I02) provided the following comments when asked what type of feminine behavior does not work at the Naval Academy:

Oh no crying. Can't cry. Can't get real emotional. Can't talk about anything female related like periods or going shopping for clothes or if you talk about chick movies or stuff like that . . . you kind of have to keep from acting like a girl, even though that's maybe your personality. I'm a really friendly person, I like to talk to people and they perceive that as flirting. You have to worry about that, you can't be too nice.

Another Fourth-Class Midshipman (I01) stated that her roommates have not changed their behavior and, are consequently not as easily accepted by the male midshipmen:

I don't think I ever had to (change my behavior) because I tend to be pretty open-minded, I'll put it that way. I've had a lot of experience out in the fleet. I kind of got the shock syndrome. I actually had a guy compliment me last night, he said I was one of the boys. As far as my roommates, I think that if they wanted to become part of the boy's club they would have to change the way that they are. Because they are very sweet and innocent. It's kind of hard to go and hang out with the boys and not have conversations that could embarrass them. Don't get me wrong, they both have a full circle of friends. One plays on the rugby team and one is on the crew team. They aren't trying to go out and impress anybody.

A Fourth-Class Midshipman (I04) gave this perspective:

A little bit has changed. I was pretty much a tomboy before I came here. I definitely liked to be looked at but I have to suck that part back in.

I am probably more open to any conversation they might have and try not to care and look at it more from their point of view. I mean, I know I definitely don't consider myself a guy. I try not to object to anything they say. I don't want that stereotype. I know with my roommates, I'm probably the least sensitive in my room. They don't want my roommates in the room while they're talking, but I can still be there. I don't want to be cut out of the loop. I think they'll respect me and work with me better. I'm still in the loop and I want to make sure it stays that way. The conversation will just die when my roommates walk in.

A First-Class Midshipman (I14) stated:

I knew I had to be careful with the way I dressed or how I acted around certain guys. Or I would automatically get labeled as sleeping around with somebody. Or trying to get your way. In order to be respected as a female midshipman you have to be careful about the way you carry yourself. We try to tell the under-class you need to be careful. Such and such likes you or whatever. Don't have him hanging out in your room all the time because it is automatically perceived as an upper-class hanging out in a plebe female's room that she is easy. He's talking to her because they are going to get together. They're fraternizing or something of that nature. Even if you're just friends, you need to be careful.

Though she feels comfortable being a woman at the Naval Academy, a Third-Class Midshipman (I06) relates that she still needs to be careful about what she says and how she acts:

My theory is if you don't like my personality, you don't have to talk to me. I didn't. I get along with a lot of people in my company, both now and as a plebe. I feel like it's a privilege to do my hair and put on makeup because I have to do something to differentiate myself from the men. I'm a girl and I should look like it, I should

smell like it. I more proud of being a woman now, that I've come to the Academy, I'm rare here. It's very easy for women to gain a reputation at the Academy. You have to be very careful about what you say, what you do, and how you act.

A Second-Class Midshipman (I09) gave this response when asked if she felt she had to change her feminine behavior:

When I wanted to go to University of Illinois and stuff like that, I just wanted to be a girl. That would be a big thing sometimes. It was really weird plebe summer because for the guys you are bringing out the macho in them and for the girls you are squelching them. I would just look at it and tell myself I'll be okay next year. And then you still felt it a little bit because you still had to go out in uniform but then again I told myself it was only a for few more months and I will never ever have to do this again. It was survivable. It was probably the hardest now that I think about it.

E. THEME IV: ALL INTERVIEWEES FEEL ACCEPTED BY A MAJORITY OF THE MALE MIDSHIPMEN

1. Theme

All of the interviewees stated that they felt accepted by a majority of the male midshipmen. Similarly, all of the interviewees added a caveat to their statement citing stories of male midshipmen who were not in favor of women at the Naval Academy. Generally, encounters with these male midshipmen were negative in nature. Several of the interviewees adopted a strategy of avoiding the male midshipmen who hold these opinions.

2. Justification

When asked if she felt accepted by the male midshipmen, a Fourth-Class Midshipman (I01), who was a prior-enlisted Marine, explained the difference between acceptance by men in the Marine helicopter maintenance shop and by male midshipmen at the Naval Academy:

Most of them do. Compared to how the guys accepted me originally out in the fleet, they do. Because when they first signed up they knew that there was going to be women here (the Naval Academy). It's becoming less and less of a new thing. For me in the fleet it was like this has been a male job period since the creation of helicopters in the military. What does she think she's doing here? For the most part they do. We know in our company the men who don't want us here. It's really obvious to us.

Another Fourth-Class Midshipman (I04) stated:

Yes, they accept women but it's not as women, as another non-sex type of person. I mean it's obvious that we're women but it's more like we're not really women. We aren't people that you would date or that you would ever consider marrying. It's not even like we're sisters either. It's kind of like a hybrid of midshipman kind of feminine person. I'm generally accepted and I'd rather be, like anything they say I want to be able to be said around me.

Another Fourth-Class Midshipman (I03) explained that, although a majority of male midshipmen accept women at the Naval Academy, there are still a few who do not:

There's the guys who don't want women here and you can tell them right away. Just by their attitudes, the way they look at you in the hall. Then there are guys who are perfectly comfortable

with it and they like having women here. I would say its about 85 percent (of the male midshipmen) who want women here. You only come across a few. Like there was this boy in my plebe summer company who you can tell and a lot of the girls don't like him because he has that attitude like this is the men's military. This year he has started to loosen up. I think that he's realized that everyone has the same problems. Maybe he's better at running but I'm better at soccer. I think a lot of guys have a problem with women in combat. But I think it's a small percentage. You can avoid them.

A Second-Class Midshipman (I11) believes that most male midshipmen do not have a problem with women at the Naval Academy unless a double standard is perceived:

I do, for the most part. Same academic workload, we go through the same things even though there are different standards. Speaking to my friends, we are all accepted here, but some male midshipmen might not like that idea. They might think there are different standards.

A First-Class Midshipman (I14), who will be entering the Marine Corps upon graduation, stated the following:

I know all of them don't. Especially for someone like me trying to go Marine Corps. Had I known it was as back stabbing as it is, I probably wouldn't have come here. Because of that competitiveness, especially when I was out at Leatherneck, if you can't hang with the guys. One of my upper-class actually told me one time, he was going to be a SEAL, he said how are you going to train my men if you can't PT with them. I was like because I can't out PT you I can't train? I can't be an officer? I know from Leatherneck this past summer that a lot of them look at it that way. If you're not that good at PT, everything is about muscle the way that guys think. They do weigh a lot on the physical here. A lot of them see it that way.

A Second-Class Midshipman (I12) believes that women are accepted as long as the current situation remains the status quo:

It's not really something that we talk about at the Academy and I think that they accept us to a point. They accept us to the point where everything stays the same and we are only allowed to go into the jobs that we can right now. Say if submarines were open to women in twenty years and they opened up further jobs to women, then I think their mentality would shift a lot more. They would be very adamant against having women in the submarines or having women do further combat roles. I think they are happy to stay with the status quo as long as it stays the status quo. They don't want change to happen. They don't want to see any progress going for women to be more involved in the military. But that is just completely the my aspect of the guys that I hang around with here at the Academy.

A Third-Class Midshipman (I06) stated that she believes female midshipmen are accepted at the Naval Academy:

Yes, I do. The people that don't think women should be here, they keep their ideas to themselves. They'll accept you, they won't be rude to you. They won't ostracize you. I had one friend tell me that he doesn't think women should be here because he can't see his daughter coming home in a body bag. That I can understand. I don't fault him for that. I guess men have this idea, and I see it a lot here, that they should be chauvinists. That women should be protected. When I was a plebe, I still had male firsties (First Class Midshipmen) open doors for me. It's kind of odd because you think I'm a lower rank than you and I should open the door for you. I think it's kind of funny.

**F. THEME V: ALL INTERVIEWEES HAVE CONSIDERED LEAVING THE
NAVAL ACADEMY**

1. Theme

All of the interviewees have considered leaving the Naval Academy at one time or another. Thoughts of leaving ranged from a passing notion to actually starting the paperwork to begin the voluntary resignation process. These thoughts primarily arise during times of high stress and pressure. A majority of the interviewees expressed that it is during these times when they start to draw comparisons between the Naval Academy and a traditional civilian university. Each interviewee has developed her own strategy to cope with these feelings and place the situation in perspective.

2. Justification

A Second-Class Midshipman (I10) explained the reasons why she had seriously considered leaving the Naval Academy:

Pretty much all last year, my sophomore year, I wanted to leave. I always just thought I would after sophomore year. I guess . . . it was so many things. I didn't like this school. The beginning of my youngster year I had met a boy. He graduated from here last year. We started dating the beginning of my youngster year. It's just different having a boyfriend here. It's really hard and there's just minor things. As a youngster we were constantly being watched. I think that's the big thing. I still feel like that sometimes, that you are constantly being watched. I felt, especially after talking to some of my friends who are going to another college, that I wasn't really developing myself. Like I

wasn't finding myself or something. I didn't feel like I was becoming a better person. I felt like I was constantly looking over my shoulder. People were always watching me. Watching what I do. I didn't have the freedom that I wanted to leave or do whatever. And talking to my friends at other schools, I would get so jealous. They do so much and I felt like I do nothing. Just little things like they would go out to a party at night or something. A lot of things that don't happen here. The kind of things that I wanted as my college experience.

She said that she started the voluntary resignation process but her parents put her in a position where she felt she could not leave the Naval Academy:

We had come to this agreement that if I came back from summer cruise and I gave it a honest try and I didn't like it then I was going to leave. I came back from cruise and I wanted to leave. I didn't like being on the ship. So, I came back here and started going through the resignation process and filled out the forms. I went to the interviews. My parents were starting to turn on me. It was kind of like I could move back in with my Mom who I was trying to get away from in the first place. I wanted to move out of my house. I couldn't move back there. Or I could move back in with my Dad. He lives in the area around here. But my step-mom told me I would have to pay rent to live there. My Dad had never mentioned that before so they were kind of making it really hard. There was also my boyfriend who had just graduated from here and we had talked about me possibly moving in with him. I thought about that for about two minutes. I kind of felt like I didn't have a choice. I could've, I mean if I really wanted to, I could've moved back in with my Mom. It just wasn't at all what I wanted to do. I didn't want to move back in and so I knew that I was staying.

A First-Class Midshipman (I14) considered leaving because of peer reaction to her assignment on Brigade Staff:

I was starting to think maybe I should leave. I got to the point where I was burned out. I realized I was doing it to myself this year. I told myself that I could go somewhere else and not put up with this mess. I actually went to my Company Officer one day and was fighting the tears because I didn't want him to see me cry. I couldn't take it anymore. I had just been on cloud nine two or three days ago because when I found out I was on Brigade Staff he was so happy, I was so happy. Three days later I am in his office just about ready to explode. I can't do this now, I've got to leave. I guess that's not really a regret, it's just, I don't even know how to explain it. I was tired of fighting. I realize now that I was kind of fighting myself. But it was that not belonging, not fitting in.

A Second-Class Midshipman (I12) considered leaving shortly after her twin sister started the voluntarily resignation process during plebe summer:

I have a letter that I was going to send home to my parents, telling my parents that I was leaving this place. I wrote it during plebe summer, must have been the second or third week. It was a time period that my sister was leaving and plebe summer is plebe summer. It wasn't what I was thinking it would be. Plebe summer is a big mental game. I was expecting the physical activity and I was expecting the business of the day. I wasn't expecting the mental games that people play with you and that you had to play with yourself to get through the day and to get through those six long weeks. I had that letter ready to send home to my parents but I just didn't know how to go to my squad leader and tell that person that I wanted to leave. I think that was telling me I didn't need to leave. Like I need to stay here and go through it.

A First-Class Midshipman (I15) stated:

At the end of youngster year, I did put in my papers (i.e., voluntary resignation papers) and I thought I wanted to go to another school. So I

waited through the summer because that is the first time you go out on a ship. I waited and decided I'd stay. I guess up until that point there wasn't necessarily any regret just because I really didn't know what I was looking for. I think once you spend a little bit of time here, or even at any school, you're going to find what you are looking for, whether it's your school or anything like that. Since I decided to stay, there have been times that I'm thinking what am I doing here, I don't know if it's right.

A Second-Class Midshipman (I09) related how her plebe year was a different experience than her youngster year:

Plebe year, never seriously (considered leaving), but I'd do things, like okay, I'd be sitting in chemistry class and I was supposed to be paying attention. I'd make little lists that said 'USNA/University of Illinois'. It would feel good to be University of Illinois, yes, check. I would make these lists on a days that I had a particularly bad breakfast or come around. I guess I did it just to make myself feel better. To realize that there's other things out there. It surprised me, and now that I think about it, I never thought about leaving my youngster year even though I was having a much worse year as far as academics go. I thought they're going to kick me out. I never thought about leaving just because I felt like . . . I think I said in high school that if I make it through my plebe year I'm going to stay. Maybe that just stuck with me subconsciously. Also, I moved my youngster year. I had a new company and I had new roommates. I loved the people I was with plebe year but youngster year my roommates and I got along so well. I guess I would say just because you like the people you are around it becomes more of a home, I guess.

A Third-Class Midshipman (I05) explained that she thought about leaving during stressful times:

I never had any serious thoughts (about leaving). I mean when things would get real bad, I would

think about how it would be if I did leave and went to a regular college. Never any serious consideration. For instance, last semester I had gotten mono (i.e., mononucleosis) and so all my work got piled up. I still had to do all my military obligations and there was just a lot of stuff going on. I would think that if I was at a regular school, I would still have to do my work, but all this other stuff would go away. Just like when you get to that point in the week when you are so tired and can't stay up anymore you would say that if I was at a regular school I could just go to sleep right now. Things like that. Stressful times.

G. THEME VI: MANY INTERVIEWEES BELIEVE THAT A NAVAL CAREER IS INCOMPATIBLE WITH MARRIAGE AND RAISING A FAMILY

1. Theme

Female midshipmen view the future of having a Naval career and marriage/children as separate entities. A perception exists that one of these options is only feasible without the other. When asked for reasons why female midshipmen voluntarily leave the Naval Academy, seven of the 15 interviewees told stories relating to marriage and family. Three of the interviewees explained that it would be a factor in whether or not they serve past their initial military obligation.

2. Justification

Midshipmen are not permitted to be married while attending the Naval Academy. Despite the fact that marriage is permitted after graduation (commissioning), several of the interviewees relayed stories of female midshipmen

leaving the Naval Academy to get married and have a family.

A First-Class Midshipman (I13) commented on why one of her teammates on the track team left:

Last year there was a girl a year below me on the track team. She decided to leave. Her reason for leaving was mostly because she got engaged to a first class midshipman. She decided that it wasn't for her. That happens to a lot of people when they get engaged. They want to go out and start a family. They don't want to be in the military. She said it wasn't for her anymore. She wanted to go and do something else, go to another college. Get a different kind of degree or something.

A Second-Class Midshipman (I12) explained the reasons why some women that she knew left:

My roommate plebe year was just somebody who, and we always joked about this, but she came here to meet guys. I know some of the female midshipmen have left because they become engaged. I had a youngster in my company at Thanksgiving who left because she was engaged to a '98 grad. She left so she could go and get married. I know another classmate of mine who did the same thing.

Another Second-Class Midshipman (I09) expressed that she has some regret about her decision to attend to the Naval Academy when she thinks about the future and has thoughts of having a family:

I think about, gosh, I want to have a family. I want to have lots of kids. Well wait, I have five years after this at the minimum. But what if I really like it? What if I go pilot and have more years? I start thinking and get all caught up in that. I tell myself if all's you wanted to do was have a family, why did you come here? Then I will put it in perspective and tell myself you're twenty years old. I have time. I don't know.

Not really but sometimes when you just get caught up in every thing, you get down about just not being able to choose when I want to do this and when I want to do that. I'm thinking in the future. I'd like to be young mother, I guess you could say. But maybe that's the exchange I'll have to make to have these experiences. Give and take.

She went on to explain that two women voluntarily left the Academy to get married:

Surprisingly, some just leave because they just think I don't want to do this anymore. There's a couple of those but . . . I know of two girls, actually, who left for the same reason. Their boyfriends graduated and they were going to get married. It surprised me a lot. I was like you go here too. Shouldn't they respect that you want to graduate? I guess there are a number of girls who do that. I can't say a number, I only know of two. That still seems like such a high number for people that actually do that. Mostly, people who did that left during the year as soon as they felt like that. The two girls that I'm particularly thinking of left after youngster year. They did their time and said okay this was nice and then left.

When asked if she thought she would serve past her initial obligation (five years), a Third-Class Midshipman (I06) replied:

I don't know, if I like it I will. At a minimum I would go into the reserves. I would like to be a wife and a mother. That way I would still earn money and be out in the work force and I could still be at home with my children and watch them grow up.

Another Third-Class Midshipman (I05) expressed similar thoughts:

I'm pretty sure about what I want to do when I get out. I am not planning on when I will get out. It will depend on a lot of things like if I get married and want to have kids. When I get out, I want to go to grad school and continue on with engineering. That doesn't need to happen right away.

A First-Class Midshipman (I14) explained that a classmate left because she wanted to be a homemaker like her mother:

There was another classmate of mine, another black female, who was having trouble with swimming. She couldn't jump the five meter. She wasn't happy here. She hadn't been. This was kind of like her reason to escape. I think these girls weren't here because they wanted to be. They were here for someone else. Like the one with swimming problems, she wanted to go and be a cook. Her mother was a homemaker. I think she got that from her Mom. But her Dad wanted to come to the Naval Academy. So she did. Her heart was with being a homemaker. She eventually left.

She went on to explain that she felt she had to make a choice between a Naval career and having a family:

Women have to think about when they want a career and a family. I came in here wanting a career. But in-between I told myself I didn't. Now I'm back to the point where I do. That came mostly from the fact where at one time I didn't want a family, then I did, and now I'm to the point where I still want a family but I also want to do what makes me happy. Like a career for myself. There's a lot more independent women these days. I don't know how many young women come out of high school thinking I'm going to do this career thing and thinking like that career, family, etc. and trying to plan the rest of their lives. It would take a lot for a female to know, coming out of high school, what you plan on doing with your life. You do know, or it's expected for you to be a mother and a wife.

A Fourth-Class Midshipman (I02) stated:

It's hard to be a girl here. It's hard to have a boyfriend here. And then I start thinking when I get out into the Navy and I'm going to be a professional officer, who is going to want to marry me, you know? I'm going to be off on cruise and will be moving around, who is going to want to do that? A lot of girls that I know that left during plebe summer are not doing NROTC. They're going to a regular college and they're going to a regular person.

A First-Class Midshipman (I15) discussed how a relationship with her boyfriend at home was a factor during the times she had considered leaving the Academy. She was not sure if the military lifestyle was compatible with her relationship:

I think it was along the lines of a military lifestyle once I get out and that kind of thing. Like I said, I didn't know what I wanted to do anymore because I knew I couldn't fly. I have a boyfriend at home, we've been together since high school. We're getting married now, actually. I didn't know what a military career meant as far as if we would stay together. Now he's going to follow me around for five years. Thinking about it then, when we weren't engaged, I didn't know what that meant for us as far as marriage was concerned. Looking at a civilian school and the opportunities they have there as opposed to here and the little things that bother you here, thinking if I just go somewhere else it would just be so much easier.

The following excerpt was taken from a resignation letter (R01-9) in which a midshipman expressed her plans for the future:

I plan to attend a civilian school in Texas and possibly to major in education. I definitely want

to earn a college degree and very possibly start a family of my own. I would in some way like to share what I have learned in life with others.

When asked if she had noticed any themes in the exit interviews, Captain Jacob, Chair of the WMSG, stated the following:

I would say that an overwhelming majority of them want to be traditional girls. Maybe at age 18, 19, or 20, they don't know if they want to be a warrior yet. It's glamorous to be at the Naval Academy but deep inside they just want to be mothers. There's nothing wrong with that. I regret that we lose a lot of potentially good people because there is still a gender issue there.

H. THEME VII: THERE IS A PREVALENT VIEW THAT MOST FEMALE MIDSHIPMEN WHO LEAVE THE NAVAL ACADEMY WERE PRESSURED INTO ATTENDING BY THEIR PARENTS

1. Theme

Several interviewees and resignation letters mentioned pressure from parents to attend the Naval Academy in conjunction with voluntary resignation. Once extended an appointment to attend the Naval Academy, female midshipmen were afraid to decline the offer for fear of disappointing family and friends. After arriving at the Naval Academy and experiencing the rigorous military environment, female midshipmen realize that they will not succeed in the military environment on their parent's motivation alone.

2. Justification

A First-Class Midshipman (I14) shared a story about a female midshipman who came to the Naval Academy because of her father:

My plebe year, I wouldn't say she was a friend, but it was someone actually the chaplain had put me in contact with a midshipman who wanted to leave. She was a black female. I talked with her but she was determined to leave. It was pretty much the situation that she came here because her Dad wanted her to. I'm a firm believer in you can't do that. You can't come here because someone else asked you to do it. I wasn't, in that respect, going to try to talk her into staying.

A Fourth-Class Midshipman (I03) stated:

There was one in our plebe summer company who left. I think she just . . . A lot of people, I find that leave voluntarily are people that got pressured into coming here from their parents. Whether they come from a military background, their father is pressing that the military is carried on in the family. I find a lot of people leave because it's not their own decision. It's the same situation with her. She felt like she was pressured into coming here and then when she got here she knew that she had made the wrong decision.

A First-Class Midshipman (I15) told a story about a woman who continued to receive pressure from her parents to remain at the Naval Academy, even after she had decided to leave:

The plebe who was in my platoon last semester, I also did detail, so I had talked to her over the summer and then in the first semester. She had basically said over the summer I don't want to be here at all, my parent's wanted me to go. They

didn't have a lot of money and she came for a free education, she said she'd give it a shot. She told her parents that and halfway through the summer she said no. This isn't me. I don't want it. She called up her parents and her parents said we don't have any money to send you anywhere else. You have to stay there. She told them she would try it for a semester. So, we go into the school year and she's like no. This isn't me, I want to get out. She, herself, went to look at other schools that she had applied to in high school and ended up getting into one. So then she called her parents. She did all this without telling her parents. She told them that she ended up getting into the school and still really wanted to get out. The big problem was she told her parents that she would finish the semester and then she ended up wanting to leave in the middle of the semester. Her parents thought she was just quitting. They said she wasn't giving it enough time and everything. She basically decided she was leaving.

A Third-Class Midshipman (I05) felt that female midshipmen receive greater pressure from families to graduate from the Naval Academy:

It seems like across the board there is more pressure from outside, like families, on the girls than there are on the guys. If you come and it wasn't your choice, I mean if this was not my choice I would definitely not be here right now because it's not worth it. I don't know how anybody could do this for somebody else. So I think that has a lot to do with it to. My roommate who I was talking about who just left, well her Dad was living vicariously through her. He loved this place and was so proud of her. The whole time she was just doing it for him.

A Second-Class Midshipman (I11) stated:

Both of my roommates left from my plebe year. One she just hated it. Her Dad came through the Academy and graduated. She just didn't like the Academy life. She didn't really know what she was

getting herself into. Her Dad didn't really tell her all the nitty, gritty like getting yelled at.

A female midshipman (R00-9) explained in her resignation letter how her family's excitement over her appointment to the Naval Academy influenced her decision to attend:

I know what has made me stay here so long is not the motivation needed to be an officer. I falsely used fake motivation, the motivation of my parents dreams of me being here, my family's happiness and joy upon my acceptance, and my younger brothers admiration in my success as being accepted into the Brigade of Midshipmen. Yet, now two years and three months later I call into question my own happiness.

A female midshipman (R01-7) matter of factly stated the following in her resignation letter:

I made the decision to attend the United States Naval Academy largely because of my parent's pressure. The Naval Academy also offered a good education and job stability.

Another midshipman (R01-10) stated that family and friends enthusiasm was one of the reasons she decided to attend the Academy:

I decided to come to the U.S. Naval Academy for a variety of reasons. A pressing factor was the overwhelming enthusiasm of parents and friends. The prestige, excellent academics, traditions, discipline, and the "free" education were all key factors as well.

Another midshipman (R02-2) stated that she felt obligated to attend the Academy:

I came to the Naval Academy because I felt obligated to do so. As my family and friends showed great excitement at my acceptance, I could not decline my appointment.

Captain Jacob noticed parental pressure as one of the recurring themes in the exit interviews she conducts with female midshipmen:

Mom and Dad see this as a way to save \$100,000 by sending their girl - and I expect this happens to boys, too - to the Naval Academy. Mom and Dad push, push, push. It's like a starry-eyed bride going down the aisle. She's enchanted by the glamour and all the attention, but maybe she's not ready for such a big commitment. When a young girl gets accepted to the Naval Academy, Mom and Dad know this is a really good financial deal and start pushing her to accept the appointment and stay in. But it's not Mom and Dad who have to go through Plebe summer and face nine years of military life. I have even seen situations where Mom and Dad tell the female midshipman that if she quits, she will not be welcome back home. That's really tragic.

I. THEME VIII: A MAJORITY OF FEMALE MIDSHIPMEN WHO RESIGN STATE THAT THEY HAVE NO DESIRE TO BE A NAVAL OFFICER AND CANNOT ADAPT TO MILITARY LIFESTYLE

1. Theme

The primary reasons stated for voluntarily resigning from the Naval Academy pertained to no desire for a military career and failure to adapt to a military lifestyle.

Twenty-six of the resignation letters specifically stated these as reasons for leaving the Naval Academy.

2. Justification

The following excerpts were taken from resignation letters.

(R00-3):

I came to the Naval Academy because I was a recruited soccer player and to play for one of the best players in the world. I also came because it is a prestigious institution that has excellent benefits upon graduation. I am resigning because I do not like the regimented lifestyle at the Academy and feel happier at an institution where there is more freedom and less pressure.

(R02-3):

You have to want to be here. You have to have the desire to run fast, learn your rates, clean your room, etc., with the knowledge that one day you will be a Naval Officer and it will have all paid off. I don't want to be a Naval Officer. I don't have this motivation. I feel like I'm wasting my time being here now because I don't see myself ever enjoying the Navy options.

(R99-3):

I am now resigning from the Naval Academy for many reasons. They include the fact that after my two years here, I have realized that I do not want to be in the military. I am not happy attending this institution. I am very family oriented and being here deprives me of much of my family involvement.

(R01-3):

I do not believe that the U.S. Naval Academy is for me. I do not want to be a naval officer or even be in the Navy. I just want to leave. This is not the life or place for me and its not use wasting my time or anyone else's by staying here. I would be lying to myself and everyone else if I did stay here.

(R01-8):

Although I know that I could do well at the Academy and in the fleet, I have decided that the military lifestyle is not appealing to me, and that I would be much happier at a civilian university. Before I came to the Academy, I only looked at the surface of what a military lifestyle would be like. I saw the awesome jets and the opportunity to serve my country, but I did not see the incredible commitment to the service and one's shipmates, the long deployments, absence from one's family over long periods of time, and many other duties that an officer holds.

(R02-10):

I have made the decision to leave because I realize that the military life is not for me. I am not ready for this type of life-long commitment. I made the wrong decision to come here and I do not want to be doing something that I will not put all my effort into.

(R02-7):

I would like to leave the Academy because I do not want to be a Naval Officer. I would like to perform my duties and go home at the end of the day. In the Navy I would be working every day of the year. Secondly, I am an independent person who likes the freedom of choice. In the Navy I would have very little freedom of choice. I would have my entire life planned out for me by other people. Most importantly I have learned that I need to be close to my family. If I were to be stationed on a ship, my work would be affected by my concern for my family.

(R02-6):

My primary motivation for leaving stems from the realization that I do not want to be a Naval Officer. The concept of naval service appealed to me in general, but not until I arrived was I provided with a more concise picture of what that service entailed.

**J. THEME IX: FEMALE MIDSHIPMEN WHO RESIGN INTENDED TO
CONTINUE THEIR EDUCATION AT A CIVILIAN UNIVERSITY**

1. Theme

All of the resignation letters state that the female midshipman intends to continue her education at a civilian university. A majority of the resignation letters state that the female midshipman will continue her education in a scientific or engineering-related field of study. In addition, several plan on attending law and medical school. Remarkably, two letters stated that the female midshipman would continue to pursue a military commission through an ROTC program.

2. Justification

The following excerpts from resignation letters show that many of the women intend to pursue a highly technical and non-traditionally-female field of study in college or graduate school.

(R00-9):

My future plan consists of being a lawyer for international law. Although the Naval Academy offers Political Science as a major, my hopes of graduating and becoming a lawyer it cannot fulfill. I have evaluated my performance through the past year as a plebe and I have effectively surmised that some of my problems are due to a lack of motivation. I have no longer the desire nor the motivation to be here.

(R02-3):

No matter where I was going to school I decided that I wanted to major in Chemistry. This is still my plan. For financial reasons I will attend the University of Maryland at College Park, hopefully regaining my acceptance to their honors program. I hope to go to graduate school so that I can research diseases as a career. I have always wanted to work finding the cures and vaccines for disease.

(R02-2):

I plan to return to Arizona this Fall. I will major in molecular and cellular biology, ultimately conducting research in genetic engineering.

(R01-8):

After I resign, I plan to reopen my college file at Iowa State University (ISU) in Ames, Iowa. At ISU, I will major in mechanical engineering and perhaps physical therapy. To fulfill my dream of becoming a pilot I plan to finish ground school and become a private pilot.

(R02-9):

Upon leaving the Academy I plan to pursue a degree in either chemistry or biology and eventually pursue a career in medicine. I wish to attend Washington College or another university this fall.

(R02-1):

I have decided to leave the Naval Academy for several reasons, but primarily I have no interest in becoming a Naval Officer. I have my own personal goals of attending Georgetown or Princeton University, earning a degree in English, and one day obtaining a PhD with hopes of becoming a college professor.

The following resignation letter (R99-7) relates that the midshipman remains committed to becoming a military officer:

I want to resign because I am now aware that the Academy is not the best way for me to become an officer. I love the Academy. However, it is not the place for me. I will not excel as much as I know that can here. I plan on attending the University of Michigan at Ann Arbor and pursuing a military life in the Naval Service via another path. I changed many of my previous goals in order to attend the Academy but I will once again follow them as well as the military at the University of Michigan.

Similarly, this midshipman (R02-5) will continue to pursue a Navy commission:

My future plans are to enter the NROTC program at the University of Rochester and become a Marine jet pilot.

K. THEME X: ALL INTERVIEWEES WOULD RECOMMEND THE NAVAL ACADEMY TO OTHER WOMEN

1. Theme

Female midshipmen would recommend the Naval Academy to another woman if they were sure the person possessed characteristics that would allow her to succeed in the military environment. Additionally, the interviewees stated that they would ensure that the woman was interested in attending the Academy for her own reasons. Of the seven interviewees who were asked, all stated that they would recommend the Academy to other women.

2. Justification

When asked if she would recommend the Naval Academy to other women, a Second-Class Midshipman (I09) stated:

Yes. It's hard to say because I would recommend the Naval Academy to basketball recruits. But then someone asked me would you have your sister come here? I was like oh wow. But if my brother wanted to come here, I would have the same reaction. They are so much closer to me and I don't know if I'd want them to go through this. I would recommend this place to a girl the same way I would recommend it to a guy.

A Third-Class Midshipman (I06) felt that women are treated better in the military than in corporate America:

I think that women here are given a lot of opportunities. I think that our treatment is better here than it is at a lot of the office building across the country. As a whole, I think that the military is coming along faster than some offices. I think that I am treated very well. I understand how there could be a problem but I don't think women leave because they are treated poorly. I honestly don't.

A First-Class Midshipman (I15) would recommend the Naval Academy to men and women if she were confident they would fit into the military environment:

It depends on who I am talking to. A lot of times you can talk to someone, I think this goes for males as well, talking with a female you can assess what they're like and how they'll fit in to this kind of environment. I don't think I'd ever say don't come here. If someone had tried to discourage me while I was looking at it in high school I would've been like what are you talking about. I wouldn't have listened to anything they had to say. I wouldn't try to discourage but I would try to tell them some of the different things that I've seen here.

Similarly, a First-Class Midshipman (I14) stated:

I know the reason why I made it through here and it took a lot of self discipline. I don't know if everybody has that. I also know it takes a lot of sacrifices and dedication as a female to want to do the Naval Academy and go off and do the five year obligation afterwards. You have to know that's what you want to do. The females that left weren't here for their own reasons. I don't think I would be able to say hey you need to come to the Naval Academy unless I knew for myself and I knew this person so well that it would really benefit them.

A Second-Class Midshipman (I12) would recommend the Naval Academy to other women if she were sure they wanted to come here for the right reasons:

I would have to know that person and know their personality and their goals in life fit into the Academy. And I would have to be sure it's not a decision they made for other reasons, whether it just be that somebody else wants them to come here or that I am pushing them to do this. I think they would have to have a vital interest for themselves to come to the Academy. If they are willing to work hard and do their job, I would help them in anyway possible. I think there are certain people who get great rewards from graduating from the Academy and doing well for the four years they are here. But you have to have a certain personality and a certain drive to get through this place. I wouldn't recommend to just any person that I didn't know to come here.

VI. CONCLUSIONS AND RECOMMENDATIONS

A. OVERVIEW

This study examines the voluntary resignation of female midshipmen from the Naval Academy. Specifically, the study focuses on theories of college student attrition that are based on data from traditional civilian universities.

Results of quantitative and qualitative analysis show that a greater number of factors likely influence a female midshipman's decision to voluntarily leave the Naval Academy than a student's decision to leave a traditional civilian university.

The percentage of female midshipmen who voluntarily resign from the Naval Academy is considerably higher than the percentage of male midshipmen who voluntarily resign. Most voluntary resignations occur within the first two years of attendance; and the greatest percentage occurs after plebe summer and prior to the start of the junior year, when a service obligation is incurred. Hypothesis testing confirms that female midshipmen have a lower academic and military QPR than do male midshipmen. As a result, Tinto's (1993) theory suggests that female midshipmen might not be as academically integrated into the Naval Academy as male midshipmen, making female midshipmen more likely to voluntarily resign.

Additionally, correlation testing supports Tinto's (1993) theory by showing that midshipmen who have a lower academic and military QPR are more likely to voluntarily resign. In contrast, the higher the QPR, the greater the likelihood the midshipman will leave the Naval Academy involuntarily. This is likely a result of the fact that midshipmen are held to higher standards of personal and professional conduct than are students attending civilian universities. Midshipmen possessing above-average academic and military performance may be forced to leave the Naval Academy if they fail to meet the additional standards required of them.

Surprisingly, correlation testing on MBTI personality types reveals that "passive" personality types are positively associated with a midshipman's intent to remain at the Naval Academy. This finding contradicts Eaton and Bean's (1995) theory that "active" personality types are more likely to successfully cope with the stresses of a college environment. Remarkably, the "active" personality type (ESTJ) characterized as being the most suited with the military officer profession is highly correlated with voluntary attrition. This personality type is the most represented in the population of female midshipmen.

The ten themes listed below capture the thoughts and perspectives of a small sample of female midshipmen, as gleaned from interviews and resignation letters:

- THEME I: MOST INTERVIEWEES CAME FROM A TWO-PARENT HOUSEHOLD
- THEME II: MOST INTERVIEWEES WERE EXPOSED TO THE MILITARY AT A YOUNG AGE
- THEME III: MOST INTERVIEWEES ADJUST THEIR BEHAVIOR TO BE ACCEPTED BY THE MALE MIDSHIPMEN
- THEME IV: ALL INTERVIEWEES FEEL ACCEPTED BY A MAJORITY OF THE MALE MIDSHIPMEN
- THEME V: ALL INTERVIEWEES HAVE CONSIDERED LEAVING THE NAVAL ACADEMY
- THEME VI: MANY INTERVIEWEES BELIEVE THAT A NAVAL CAREER IS INCOMPATIBLE WITH MARRIAGE AND RAISING A FAMILY
- THEME VII: THERE IS A PREVALENT VIEW THAT MOST FEMALE MIDSHIPMEN WHO LEAVE THE ACADEMY WERE PRESSURED INTO ATTENDING BY THEIR PARENTS
- THEME VIII: A MAJORITY OF FEMALE MIDSHIPMEN WHO RESIGN STATE THAT THEY HAVE NO DESIRE TO BE A NAVAL OFFICER AND CANNOT ADAPT TO THE MILITARY LIFESTYLE
- THEME IX: FEMALE MIDSHIPMEN WHO RESIGN INTENDED TO CONTINUE THEIR EDUCATION AT A CIVILIAN UNIVERSITY
- THEME X: ALL INTERVIEWEES WOULD RECOMMEND THE NAVAL ACADEMY TO OTHER WOMEN

Quantitative and qualitative analysis both suggest that personality type has an impact on a female midshipman's decision to voluntarily resign from the Naval Academy. Statements made by the interviewees consistently mention that personality and adaption skills are essential to

fitting into the Naval Academy environment. This goes hand-in-hand with correlation results that point to the finding that some personality types are more suited to a midshipman's intent to remain at the Naval Academy. Additionally, both types of analysis reveal that perceptions about female midshipmen with medical problems may be reflected in lower academic and military QPR for female midshipmen who leave the Naval Academy for medical reasons.

B. CONCLUSIONS AND RECOMMENDATIONS

1. Conclusion

As discussed in Chapter V, most female midshipmen interviewed for the study related instances where they changed their feminine behavior or became more tolerant of male behavior to increase their chances of being accepted by male midshipmen. Some women might not be comfortable with this modification in behavior and probably were not prepared for it. The fact that all of the resignation letters state that the women intend to pursue a college education (and study in a technical field) at a civilian university may indicate that they are seeking a traditional college experience where they feel free to act more normally.

Female midshipmen do not voluntarily resign from the Naval Academy solely because of interactions with male midshipmen. However, the additional strain of assimilating into a male-

dominated culture may contribute to the problems some female midshipmen experience while trying to adapt to the Naval Academy (military) environment.

2. Recommendation

Male and female midshipmen need to receive the message that it is acceptable for a female midshipman to be both "feminine" and a successful military officer. The easiest way to get this point across is to put a larger number of successful female officers in Naval Academy positions (i.e., Commandant's Staff and faculty) where they will interact with midshipmen on a daily basis.

3. Conclusion

Statements made by female midshipmen in the interviews reveal that there is a perceived conflict between marriage/family and a successful military career. This supports Tinto's (1993) statement that expectations of the role women ought to play in society affects the decision female midshipmen make on whether or not to remain at the Naval Academy. *Female midshipmen have a strong desire to eventually be married and raise a family, but many also believe it is incompatible with a military career.*

4. Recommendation

Once again, role models are the most effective way to demonstrate that it is possible to have both a successful

career and a family. In addition to increasing the number of female officers in positions that place them in daily contact with midshipmen, a greater number of female distinguished speakers (senior military officers and civilians) should be invited to address the entire Brigade of Midshipmen. These women should epitomize the ability to "have it all." That is, they should have a strong family, a successful career, and be smart and articulate.

5. Conclusion

Personality characteristics likely affect successful adaptation to the military environment. Midshipmen need to be made aware of their personality type and its possible strengths and limitations.

6. Recommendation

Introduce midshipmen to their MBTI personality type during the fall semester of the plebe academic year. This time should be used to explain MBTI personality types, the characteristics of each, and how this might influence success at the Naval Academy. Realistic examples of how a personality type might conflict with a Naval Academy experience should be used as much as possible. First-Class midshipmen should conduct the training.

7. Conclusion

The fact the gap between the percentage of total attrition for male and female midshipmen has been fairly consistent throughout the past twenty years may indicate that the difference is inherent to situations where women enter male-dominated environments. This conclusion is supported by the finding that the other service academies experience the same difference in attrition rates between men and women, as well as in medical school programs. *It is possible that the difference in attrition rates between male and female midshipmen may be "correct."*

8. Recommendation

The Naval Academy's Institutional Research Department should continue to monitor and compare the attrition rates at the other service academies and medical school programs with those at the Naval Academy.

9. Conclusion

The current procedure needs to be improved for classifying voluntary resignation at the Naval Academy.

10. Recommendation

The Registrar's office should create a written document to govern classification of a midshipman's reason for voluntary attrition. This will ensure consistency in application of definitions from person to person. Another

recommendation is to do away with the classification process altogether. Voluntary resignation can be simply classified as to when it occurs (i.e., during plebe summer or the academic year). The Institutional Research Department should be consulted in this process, because it is the end-user of this product.

C. SUGGESTIONS FOR FURTHER RESEARCH

Due to the emphasis on female midshipmen and the relatively small sample, one should not use the results of this study to predict and generalize for all female midshipmen. Further quantitative and qualitative research needs to be conducted on the voluntary resignation of female midshipmen. It is recommended that this thesis be used as a framework to conduct the same type of study every three to four years.

Interviews should be conducted with the female midshipmen who voluntarily resign from the Naval Academy. It is recommended that this not be conducted as part of the check-out process. The interview should be kept informal in nature, and if at all possible, the interviewer should be a female junior officer outside of the midshipman's chain-of-command. If taken, these steps will hopefully provide an atmosphere where the interviewee feels free to speak openly and honestly.

A similar study should be conducted on the voluntary resignation of male midshipmen. This study would be beneficial to the Naval Academy because, as with female midshipmen, voluntary resignation makes up the largest portion of attrition for male midshipmen. Why do male midshipmen leave? Do they leave for the same reasons as do female midshipmen? Do male midshipmen accept female midshipmen at the Naval Academy? These are just a few of the questions that could be explored in this type of study.

APPENDIX A. INTERVIEW QUESTIONS

INTRODUCTORY STATEMENT

"Thank you for agreeing to be interviewed. As you may recall, this interview is part of the research I am conducting for my thesis. The research requires me to gather information from female midshipmen about their experiences at the Naval Academy. You are in a unique position to describe what it's like to be a midshipman at the Naval Academy. The interview is focused on your experiences at the Naval Academy and your thoughts about your experiences.

Fifteen midshipmen will be interviewed for this project. Information about all 15 will be combined for my thesis. Nothing you say will ever be identified with you personally. Remember the purpose of the interview is to get your insights and how your experience at the Naval Academy has affected you.

I'd like to have your permission to tape record what you say so that I don't miss any of it. I want to make sure that I've captured your exact words. Remember that no statements will ever be directly attributed to you. All names, places, or other identifiers will be scrubbed. If at

any time during the interview you would like to turn off the tape recorder, please let me know and I will stop the recorder. Now let's get started."

INTERVIEW QUESTIONS

1. Demographic data

Race, religion, major, sports participation, non-academic activity participation, parent's occupations, birth order, and number of siblings and their gender.

2. Do you have any family members that served in the military, and if so, what did they do?

3. Do you have prior enlisted service?

4. When did you decide to join the military and who influenced that decision?

5. What were your other choices? Why did you choose the Naval Academy over a civilian university?

6. Did your family and friends support your decision to come to the Naval Academy?

7. Who have been your role models at the Academy?

8. Were you "surprised" in any way about life at the Academy once you started here? If so, would you say that these "surprises" were positive or negative?

9. Do you have any regrets about your decision to attend the Academy?

10. Do you think you would make the same choices (regarding the Academy and the Navy) if you could "turn back the clock" to your decision points while in high school?

11. Have you ever considered leaving the Academy? Why did you feel that way? Why did you change your mind?

12. Do you have friends (women) who voluntarily left the Academy? What do you think caused them to leave?

13. Do you think that male midshipmen believe that female midshipmen get a "free ride" at the Academy (i.e., don't have to work as hard?
14. Do you believe that a double standard exists for male and female midshipmen?
15. Do you feel that male midshipmen accept women at the Academy?
16. Do you feel that you or other women have ever had to make certain "compromises" (such as in behavior or attitudes) to be accepted by men at the Academy?
17. Generally, do you feel comfortable at the Academy? Are there ever any moments that you wish that you weren't here or that you'd rather be at a more traditional university?
18. Do you think that you will get your first choice for service selection? (Warfare community/job)
19. What benefits do you perceive for service in the fleet?
20. Would you recommend this school to another woman?
21. Is there anything else that comes to mind that you would like to add about your experiences at the Academy?

APPENDIX B. INTERVIEW DATA TEMPLATE

PART A: DEMOGRAPHICS

Respondent #:

Rank:

Race:

Religion:

Brothers: # Sisters:

Birth order:

Parent's Occupations: Father:

Mother:

Relatives military background:

Enlisted service:

Major:

Sports involvement:

Non-academic activity involvement:

PART B: RESPONSES

Decision to join the military:

Who influenced decision to join:

Role models:

Surprises about Academy life:

Regrets about decision to attend Academy:

Thoughts about leaving the Academy:

Friends who have voluntarily left and why:

Perceptions about acceptance at Academy:

Double standards:

Compromises in behavior to be accepted:

Benefits of service in the fleet:

Recommend Academy to another woman:

Freedom to comment portion:

APPENDIX C. RESIGNATION LETTER DATA TEMPLATE

PART A: DEMOGRAPHICS

Respondent #:

Rank:

PART B: RESPONSES

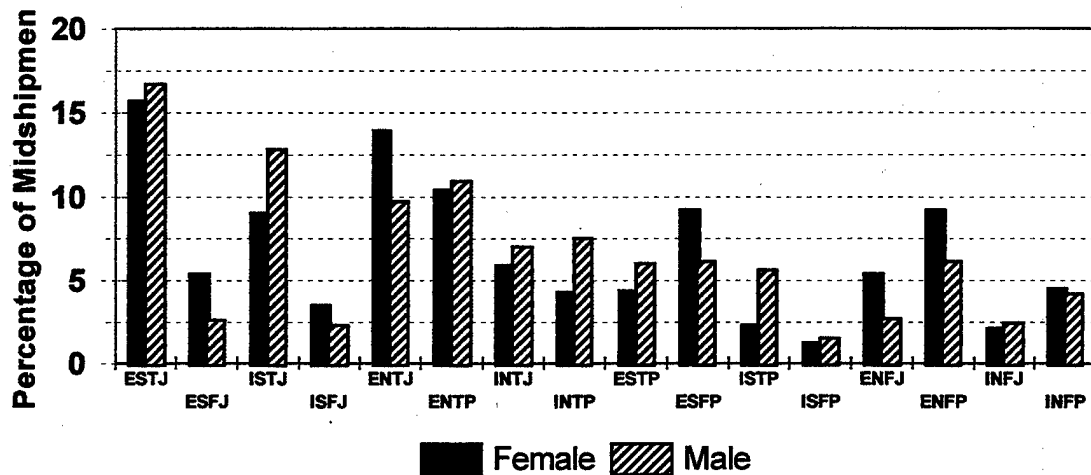
Reason for coming to the Academy:

Reason for resignation:

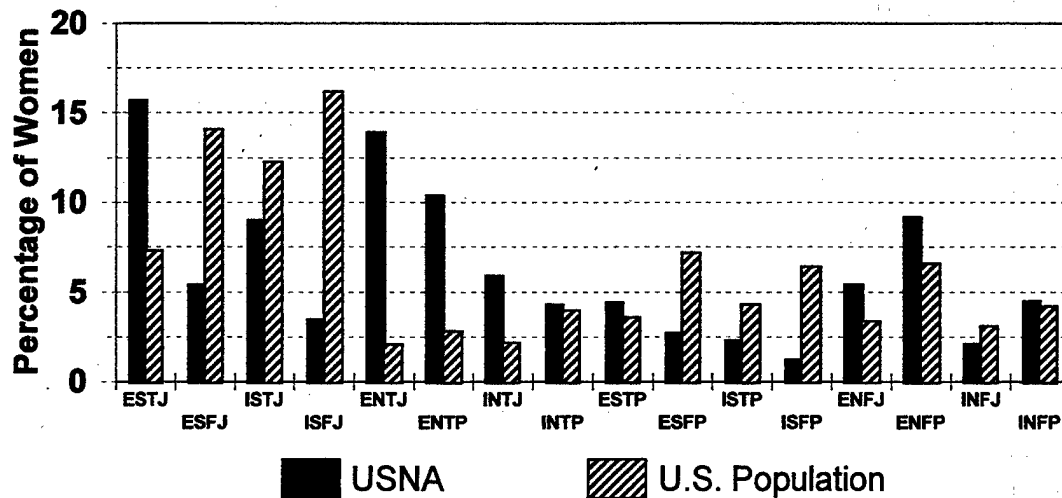
Future goals and plans:

APPENDIX D. MBTI PERSONALITY TYPE PREFERENCES

MBTI Personality Preference Classes of 1992 - 1997



Female MBTI Preferences Population Representation



Source: Hammer, A.L. and Mitchell, W.D., *The Distribution of MBTI Types in the United States*, 1996.

LIST OF REFERENCES

- Armstrong, M., *Report on Women at the Naval Academy*, The Leadership Group, April 1994.
- Baron, R., *What Type am I? Discover Who You Really Are*, Penguin Books, 1998.
- Bean, J.P., "Understanding Why Students Stay or Leave," *The Strategic Management of College Enrollments*, Jossey-Bass, 1990.
- Disher, S.H., *First Class: Women Join the Ranks at the Naval Academy*, Naval Institute Press, 1998.
- Eaton, S.B. and Bean, J.P., "An Approach/Avoidance Behavioral Model of College Student Attrition," *Research in Higher Education*, Vol. 36, No. 6, pp. 617-645, 1995.
- Fitzpatrick, K.M. and Wright, M.P., "Gender Differences in Medical School Attrition Rates, 1973-1992," *Journal of the American Medical Women's Association*, Vol. 50, No. 6, pp. 204-206, November/December 1995.
- Hammer, A.L. and Mitchell, W.D., "The Distribution of MBTI Types in the United States," *Journal of Psychological Type*, Vol. 37, pp. 2-15, 1996.
- Hatcher, L. and others, "Predicting College Student Satisfaction, Commitment, and Attrition from Investment Model Constraints," *Journal of Applied Social Psychology*, Vol. 22, No. 16, pp. 1273-1296, 16 August 1992.
- Hubbard, D., Janssen, H., and Walker, J.L., "Gender Differences in Attrition from Orthopaedic Surgery Residency," *Journal of the American Medical Women's Association*, Vol. 48, No. 6, pp. 182-184, November/December 1993.
- Navy Personnel Research and Development Center TR-78-12, *Women at the Naval Academy: The First Year of Integration*, by K. Durning, February 1978.

Pascarella, E.T. and Terenzini, P.T., "Predicting Voluntary Freshman Year Persistence/Withdrawal Behavior in a Residential University: A Path Analytic Validation of Tinto's Model," *Journal of Educational Psychology*, Vol. 75, pp. 215-226, 1983.

Stewart, A., "Learn to Accept Women at the Naval Academy," *Naval Institute Proceedings*, pp. 42-44, June 1998.

Tinto, V., *Leaving College: Rethinking the Causes and Cures of Student Attrition*, The University of Chicago Press, 1987.

Tinto, V., *Leaving College: Rethinking the Causes and Cures of Student Attrition*, 2nd ed, The University of Chicago Press, 1993.

United States Naval Academy Board of Visitors, *Report of the Committee on Women's Issues*, 9 October 1990.

United States Naval Academy. Office of the Superintendent. *Administrative Processing of Midshipmen Voluntarily Separating*, Instruction USNAINST 1920.1A, 31 March 1993.

Women Midshipmen Study Group, *Report to the Superintendent on the Integration of Women in the Brigade of Midshipmen*, United States Naval Academy, November 1987.

Women Midshipmen Study Group, *Report to the Superintendent on the Assimilation of Women in the Brigade of Midshipmen*, United States Naval Academy, July 1990.

Women Midshipmen Study Group, *Report to the Superintendent on the Status of Women in the Brigade of Midshipmen*, United States Naval Academy, August 1995.

Women Midshipmen Study Group, *Report to the Superintendent on the Status of Women in the Brigade of Midshipmen*, United States Naval Academy, August 1996.

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